DOCUMENT RESUME

ED 368 915	CE 066 164
AUTHOR	Martinson, Karin; Friedlander, Daniel
TITLE	GAIN: Basic Education in a Welfare-to-Work Program. California's Greater Avenues for Independence Program.
INSTITUTION	Manpower Demonstration Research Corp., New York, N.Y.
SPONS AGENCY	California State Dept. of Social Services, Sacramento.; Department of Health and Human Services, Washington, D.C.
PUB DATE	Jan 94
NOTE	257p.; For related documents, see ED 334 354, ED 337 657, ED 345 089, and ED 358 296.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC11 Plus Postage.
DESCRIPTORS	*Academic Achievement; *Adult Basic Education; *Adult Literacy; Dropout Rate; Economically Disadvantaged; Employment Programs; Followup Studies; High School Equivalency Programs; Literacy Education; *Outcomes of Education; *Program Effectiveness; Program Evaluation; State Programs; Student Evaluation; Tables (Data); *Welfare Recipients
IDENTIFIERS	California; *Greater Avenues for Independence

ABSTRACT

An evaluation of California's statewide Greater Avenues for Independence (GAIN) Program was based mainly on a sample of more than 2,500 welfare recipients in five of the six counties included in the ongoing evaluation. The evaluation drew on previously completed analyses and new data based on a survey of these recipients and the results of a literacy test, both of which were administered to them 2-3 years after they became part of the research sample. Findings showed the following: GAIN programs all successfully met the unprecedented challenge of providing basic education to great numbers of welfare recipients; GAIN led to increases in the number of hours in basic education and in receipt of a General Educational Development certificate; in only one study county, welfare recipients experienced significant increases on scores on a test of literacy and mathematical problem solving; and at the 2-year point, there was no link between sites with educational gains and sites with earning gains. Educational gains were concentrated among individuals with relatively high levels of literacy and test score gains were concentrated in the site that created a virtually new, county-wide adult education program tailored to the special needs of people on welfare. (Appendixes include survey response analysis, supplemental tables and figures to chapters, and 24 references.) (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 368 915

CE

GAIN:

Basic Education in a Welfare-to-Work Program

California's Greater Avenues for Independence Program

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it
☐ Minor changes have been made to improve reproduction quality
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

Karin Martinson
Daniel Friedlander

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
J. Weissman
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Manpower Demonstration
Research Corporation

January 1994

CE 066 164

BEST COPY AVAILABLE

MDRC

BOARD OF DIRECTORS

RICHARD P. NATHAN, *Chairman*
Provost, Rockefeller College
State University of New York
Director, Rockefeller Institute
of Government

PAUL H. O'NEILL, *Treasurer*
Chairman and CEO
Alcoa

ELI GINZBERG, *Chairman Emeritus*
Director
The Eisenhower Center for the
Conservation of Human Resources
Columbia University

REBECCA M. BLANK
Associate Professor of Economics
Northwestern University

ANTONIA HERNANDEZ
President and General Counsel
Mexican American Legal Defense and
Educational Fund

ALAN KISTLER
President
Human Resources Development Institute
AFL-CIO

RICHARD J. MURNANE
Professor of Education
Graduate School of Education
Harvard University

RUDOLPH G. PENNER
Director of Economic Studies
Policy Economics Group
KPMG Peat Marwick

FRANKLIN D. RAINES
Vice Chairman
Fannie Mae

ROBERT SOLOW
Institute Professor
Massachusetts Institute of Technology

GILBERT STEINER
Senior Fellow
Brookings Institution

MITCHELL SVIRIDOFF
Professor Emeritus and Senior Fellow
Community Development Research Center
New School for Social Research

WILLIAM JULIUS WILSON
Lucy Flower University Professor
of Sociology and Public Policy
The University of Chicago

WILLIAM S. WOODSIDE
Chairman, Sky Chefs, Inc.
Former Chairman and CEO,
Primerica Corporation

JUDITH M. GUERON
President
Manpower Demonstration Research Corporation

MDRC

CE

GAIN:

BASIC EDUCATION IN A WELFARE-TO-WORK PROGRAM

Karin Martinson
Daniel Friedlander

Manpower Demonstration
Research Corporation

January 1994

The Manpower Demonstration Research Corporation's evaluation of the California Greater Avenues for Independence (GAIN) Program is funded by a contract from the California Department of Social Services. Additional funding for the collection and analysis of literacy test data was provided by the U.S. Department of Health and Human Services. This report is the latest in a series of documents from the GAIN evaluation.

Dissemination of MDRC reports is also supported by our Public Policy Outreach funders: the Ford Foundation, The Ambrose Monell Foundation, the Alcoa Foundation, and Exxon Corporation.

The findings and conclusions in this report do not necessarily represent the official positions or policies of the funders.

Library of Congress Cataloging-in-Publication Data

Martinson, Karin.
GAIN : basic education in a welfare-to-work program / Karin Martinson, Daniel Friedlander.
p. cm.
"January 1994."—CIP t.p.
Includes bibliographical references (p.).
1. Welfare recipients—Education—California. 2. Welfare recipients—Employment—California.
I. Friedlander, Daniel. II. Manpower Demonstration Research Corporation. III. Title.
HV699.3.C2M37 1993
362.5'8'09794—dc20 93-42909
CIP

Copyright © 1994 by the Manpower Demonstration Research Corporation

ACKNOWLEDGMENTS

This report could not have been completed without the cooperation and assistance of numerous individuals.

In the California Department of Social Services (CDSS), several people have been key resources to MDRC's evaluation. Bruce Wagstaff, Chief of the Employment and Immigrant Programs Branch, provided continuous support and guidance. Insightful comments on a draft of this report were received from Mr. Wagstaff and other CDSS staff including Steve Larsen, Tom Burke, Fred Schack, Maria Hernandez, and Paul Nakashima. These individuals helped the study on numerous occasions by providing background data and offering assistance and advice. MDRC's work has also benefited from the wisdom and leadership of Eloise Anderson, Director of CDSS, and Michael Genest, Deputy Director of AFDC Programs at CDSS.

In the six evaluation counties, the ongoing support of the county welfare directors and other staff has been critical to the success of the evaluation. The authors are particularly grateful to the following people: Rodger G. Lum, Jo Mueller, and Libess Holguin (Alameda); Patricia Cragar, Jeff Fontana, and Betsy Kruger (Butte); Eddy Tanaka, John Martinelli, Pat Knauss, and Brenda Rosenfeld (Los Angeles); Lawrence E. Townsend, Jr., Marilyn Kuhlman, John Rodgers, Ronald Quinn, Pat Virzi, and Shirley Smith (Riverside); Cecil H. Steppe, Ted Schwend, Ray Koenig, and Marilyn Stewart (San Diego); and Arnold Fein and Katie Wallace (Tulare). In addition, we would like to thank the numerous staff of the counties' basic education providers who contributed to this study. We would also like to thank Connie Anderson of the Chancellor's Office of the California Community Colleges for comments on an earlier draft of this report.

The authors were fortunate to receive insightful comments on an earlier draft from MDRC's Welfare Studies Committee: Robert Solow (Chairman), Henry Aaron, Rebecca M. Blank, Gary Burtless, Linda Datcher-Loury, Mark Greenberg, Frank Levy, Richard J. Murnane, Richard P. Nathan, and Audrey Rowe. In addition, we benefited from the critical review of Walter Haney, Eric Hanushek, and Andrew Sum.

At MDRC, numerous staff made important contributions to this report. Judith Gueron, Gordon Berlin, Barbara Goldman, John Wallace, and James Riccio provided overall guidance to the project and made many valuable comments on earlier drafts of this report. Edward Pauly, Stephen Freedman, and Gayle Hamilton comprehensively reviewed several drafts. For the implementation, management, and oversight of the registrant survey and literacy testing, conducted by NSI Research Group, we are grateful

to Karen Paget and Ann Van Aman. Patti Anderson, Lynn Deglin, Jo Anna Hunter-Manns, Anita Kraus Gaston Murray, and Juanita Vega-Chetcuti developed and processed the survey and other data files used in this report. Dan Lehman played a key role in programming many pieces of the study, and Johanna Walter was instrumental in the analysis of the literacy tests. Cristina Di Meo ably coordinated the report and table production. Evan Weissman served as a liaison to the county and state staff. Judith Greissman edited the report with support from Suzanne Wagner and Michael Wilde. Patt Pontevolpe and Stephanie Cowell contributed their word processing skills.

The Authors

PREFACE

Established in 1985, California's Greater Avenues for Independence (GAIN) Program broke new ground by emphasizing large-scale, mandatory participation in basic education, in addition to job search, training, and unpaid work experience, for welfare recipients who were considered to need it. This new emphasis on basic education was subsequently embodied in the federal Family Support Act of 1988 and its centerpiece, the Job Opportunities and Basic Skills Training (JOBS) Program. The premise was that many welfare recipients – notably, long-term recipients, who account for the bulk of welfare spending – have inadequate educational backgrounds and basic skills for obtaining and keeping jobs, especially jobs sufficiently well-paying to enable them to leave welfare.

This report, the seventh in the GAIN evaluation, examines how the basic education component of GAIN has been operating and assesses the participation patterns and educational effects for the almost two-thirds of the GAIN caseload who, during the period of the study, were determined to need basic education. It does this by tracking the experiences of more than 2,500 of these individuals over a two- to three-year follow-up period.

The report concludes that the GAIN programs in the six study counties all successfully met the large – and unprecedented – challenge of providing basic education to great numbers of welfare recipients. It also shows that GAIN led to increases in the number of hours in basic education and to increases in receipt of a GED. However, in only one of the study counties did welfare recipients experience increases in scores on a test of literacy and mathematical problem-solving. Moreover, at the two-year point, there was as yet no link between sites with educational gains and sites with earnings gains (although the report argues that two years may have been too short a time for detecting earnings impacts, and points to evidence that earnings may have improved at the three-year follow-up point). Further, the report notes that educational gains were concentrated among individuals with relatively high levels of literacy and that test score gains were concentrated in the site that created a virtually new, county-wide adult education program tailored to the special needs of people on welfare. These results show that, while feasible, providing effective basic education services for this mandatory population can be difficult, and that longer-term follow-up will be important for detecting the full payoff of investments in education.

Finally, it must be stressed that the present results should not be overinterpreted or used to make judgments as to the value of basic education for welfare recipients or for adults more generally, who usually seek out such services and participate in them voluntarily.

Judith M. Gueron
President

CONTENTS

PAGE

ACKNOWLEDGMENTS iii
PREFACE v
TABLES AND FIGURES ix
ABBREVIATIONS xvi
EXECUTIVE SUMMARY xvii

CHAPTER

1 INTRODUCTION 1

I. The Policy Context 2
II. The GAIN Model 6
III. Interim Impact Findings from the GAIN Evaluation 10
IV. An Overview of This Report 12

2 RESEARCH DESIGN, DATA SOURCES, AND SAMPLE CHARACTERISTICS 14

I. The Research Counties in the GAIN Evaluation 14
II. An Overview of the Research Design for the GAIN Evaluation 19
III. Data Sources and Research Samples for This Report 22
IV. Background Characteristics of the Full Sample for This Report 31

3 PATHWAYS INTO AND OUT OF BASIC EDUCATION, AMOUNT OF PARTICIPATION, AND ATTENDANCE PATTERNS 37

I. The Basic Education Programs in GAIN 37
II. Pathways into and out of Basic Education 47
III. County Participation Patterns and Emphasis on Basic Education 49
IV. The Amount of Basic Education Received by Participants 56
V. Attendance Patterns in Basic Education Activities 68
VI. Completing the Basic Education Component 76
VII. Summary 84

4 GAIN'S IMPACTS ON PARTICIPATION IN BASIC EDUCATION AND OTHER SERVICES 86

I. A Comparison of Participation Rates Based on Program Tracking Data and Survey Data 87
II. GAIN's Impacts on the Receipt of Services 91
III. GAIN's Impacts on the Average Number of Months in Activities 96
IV. GAIN's Impacts on Total Scheduled Hours in Activities 98
V. Differences in Participation Levels and Amount of Education Received for Subgroups 101
VI. Summary 105

CHAPTER PAGE

5 GAIN'S IMPACTS ON EDUCATIONAL ATTAINMENT AND ACHIEVEMENT 106

I. Impacts on Educational Attainment 106
II. Impacts on Educational Achievement 118
III. GAIN's Impacts on Earnings and AFDC Payments for Those Determined to Need Basic Education 135
IV. Summary 139

APPENDICES

Appendix A Survey Response Analysis 145
Appendix B Supplemental Tables and Figure to Chapter 2 155
Appendix C Supplemental Tables to Chapter 3 163
Appendix D Supplemental Tables and Figure to Chapter 4 171
Appendix E Supplemental Tables to Chapter 5 179

REFERENCES 185

SELECTED MDRC PUBLICATIONS 187

TABLES AND FIGURES

TABLE PAGE

1 For Basic Education Participants: Number of Months Attending and Average Weekly Scheduled Hours in Basic Education Activities, Within a Two- to Three-Year Follow-up Period xxx

2 For AFDC-FGs Determined to Need Basic Education: GAIN's Impacts on Participation in ABE/GED and on Credential Reciept, Within a Two- to Three-Year Follow-up Period xxxiv

3 For AFDC-FGs Determined to Need Basic Education: GAIN's Impacts on TALS Scores, Within a Two- to Three-Year Follow-up Period xxxvii

1.1 Research Samples and Selected Topics Covered in 1993/94 MDRC GAIN Evaluation Reports 11

2.1 Selected Characteristics of the GAIN Research Counties 16

2.2 Data Sources and Research Samples for the GAIN Study of Those Determined to Need Basic Education 25

2.3 For Those Determined to Need Basic Education: Selected Characteristics of the AFDC-FG Research Sample at GAIN Orientation 32

2.4 For Those Determined to Need Basic Education: Selected Characteristics of the AFDC-U Research Sample at GAIN Orientation 34

3.1 Selected Characteristics of County Basic Education Programs for GAIN Registrants 40

3.2 For Those Determined to Need Basic Education: Participation Patterns Within 11 Months of GAIN Orientation Among AFDC-FG Experimentals 51

3.3 For Those Determined to Need Basic Education: Participation Patterns Within 11 Months of GAIN Orientation Among AFDC-U Experimentals 53

3.4 For ABE/GED Participants: Average, Median, and Percentage Distribution of Number of Months in ABE/GED Within a Two- to Three-Year Follow-up Period, by AFDC Status and County 59

3.5 For ABE/GED Participants: Average, Median, and Percentage Distribution of Total Scheduled Hours in ABE/GED Within a Two- to Three-Year Follow-up Period, by AFDC Status and County 62

3.6 For ESL Participants: Average, Median, and Percentage Distribution of Number of Months and Total Scheduled Hours in ESL Within a Two- to Three-Year Follow-up Period, by AFDC Status 63

TABLE **PAGI**

3.7 For AFDC-FG ABE/GED Participants: Average Number of Months and Total Scheduled Hours in ABE/GED, by Selected Characteristics at GAIN Orientation 66

3.8 For Basic Education Participants: Average Weekly Hours of Actual Attendance in Basic Education Activities Within 12 Months of GAIN Orientation, by AFDC Status and County 71

3.9 For AFDC-FG ABE/GED Participants: Average Weekly Hours of Actual Attendance in ABE and GED, by Selected Characteristics at GAIN Orientation 72

3.10 For Basic Education Participants in San Diego: Attendance Rates in Basic Education Activities, by AFDC Status 75

3.11 For AFDC-FG Basic Education Participants: Estimated Attendance Rates in Basic Education, by County 77

3.12 For Basic Education Participants: Completion Status Within 12 Months of GAIN Orientation, by AFDC Status and County 80

3.13 For AFDC-FG Basic Education Participants: Average Length of Stay and Total Hours of Participation in Basic Education Activities Within 12 Months of GAIN Orientation, by Completion Status and County 82

4.1 For AFDC-FGs Determined to Need Basic Education: Participation Estimates from Program Tracking and Registrant Survey Data, by County 88

4.2 For Those Determined to Need Basic Education: GAIN's Two- to Three-Year Impacts on Participation in Selected Activities, by AFDC Status and County 92

4.3 For Those Determined to Need Basic Education: GAIN's Two- to Three-Year Impacts on the Average Number of Months in Selected Activities, by AFDC Status and County 97

4.4 For AFDC-FGs Determined to Need Basic Education: The Effect of GAIN on Participation and Length of Stay in ABE/GED, by County 99

4.5 For Those Determined to Need Basic Education: GAIN's Two- to Three-Year Impacts on Average Total Scheduled Hours in Selected Activities, by AFDC Status and County 100

TABLE PAGE

4.6 For AFDC-FGs Determined to Need Basic Education: Participation Rates, Average Number of Months, and Total Scheduled Hours in ABE/GED, by Selected Characteristics at the Time of Random Assignment . . . 103

5.1 For Those Determined to Need Basic Education: GAIN's Impacts on Credential Receipt Within a Two- to Three-Year Follow-up Period, by AFDC Status and County . . . 109

5.2 For AFDC-FGs Determined to Need Basic Education: GAIN's Impacts on Credential Receipt During a Within a Two- to Three-Year Follow-up Period, by Selected Characteristics at the Time of Random Assignment . . . 113

5.3 For AFDC-FGs Determined to Need Basic Education: GAIN's Impacts on Credential Receipt Within a Two- to Three-Year Follow-up Period, by Literacy Levels at the Time of Random Assignment and by County . . . 117

5.4 Description of Literacy Levels on TALS Document Test . . . 120

5.5 Description of Literacy Levels on TALS Quantitative Test . . . 121

5.6 TALS Literacy Levels of GAIN Control Group Members and Selected Populations with No High School Diploma or GED . . . 124

5.7 For Those Determined to Need Basic Education: GAIN's Two- to Three-Year Impacts on TALS Scores, by County and Selected Characteristics at the Time of Random Assignment . . . 130

5.8 For Those Determined to Need Basic Education: GAIN's Two- to Three-Year Impacts on TALS Scores in San Diego County . . . 134

A.1 For Those Determined to Need Basic Education: Response Rates for GAIN Registrant Survey and TALS, by County and Research Group . . . 147

A.2 For Those Determined to Need Basic Education: Selected Characteristics of GAIN Registrant Survey Respondents and Nonrespondents . . . 148

A.3 For Those Determined to Need Basic Education: Selected Characteristics of TALS Respondents and Nonrespondents . . . 152

B.1 Schools Included in the Provider Attendance Data Collection . . . 156

B.2 For Those Determined to Need Basic Education: Selected Characteristics of the Survey Responders at GAIN Orientation . . . 159

B.3 For Those Determined to Need Basic Education: Selected Characteristics of the TALS Test Responders at GAIN Orientation . . . 161

TABLE **PAGE**

C.1 For Survey Responders: Length of Time from Random Assignment to Survey Interview, by AFDC Status and County 164

C.2 For ABE/GED Participants: Average, Median, and Percentage Distribution of Months in ABE/GED Within a Two-Year Follow-up Period, by AFDC Status and County 165

C.3 For ABE/GED Participants: Average, Median, and Percentage Distribution of Total Scheduled Hours in ABE/GED Within a Two-Year Follow-up Period, by AFDC Status and County 166

C.4 For ESL Participants: Average, Median, and Percentage Distribution of Number of Months Attending and Total Scheduled Hours in ESL Within a Two-Year Follow-up Period, by AFDC Status 167

C.5 For Basic Education Participants: Average, Median, and Percentage Distribution of Number of Months Attending and Total Scheduled Hours in Basic Education Activities Within a Two- to Three-Year Follow-up Period, by AFDC Status and County 168

C.6 For Those Determined to Need Basic Education: Demographic Characteristics of Selected Subgroups of AFDC-FG Survey Responders at GAIN Orientation 169

D.1 For Those Determined to Need Basic Education: GAIN's Impacts on Percentage of Those Participating in Selected Activities at the End of a Two- to Three-Year Follow-up Period, by AFDC Status and County 172

D.2 For Those Determined to Need Basic Education: GAIN's Two-Year Impacts on Average Number of Months in Selected Activities, by AFDC Status and County 173

D.3 For Those Determined to Need Basic Education: GAIN's Two-Year Impacts on Average Total Scheduled Hours in Selected Activities, by AFDC Status and County 174

D.4 For Those Determined to Need Basic Education: Average Weekly Scheduled Hours in Selected Activities for Participants, by AFDC Status, County, and Research Group 175

E.1 For Those Determined to Need Basic Education: GAIN's Two- to Three-Year Impacts on Participation Levels in Selected Activities for TALS Test Responders, by County 180

E.2 For Those Determined to Need Basic Education: GAIN's Two- to Three-Year Impacts on TALS Scores 181

TABLE **PAGE**

E.3 For AFDC-FG Registrants Determined to Need Basic Education: GAIN's First- and Second-Year Impacts on Earnings and AFDC Payments 182

E.4 For AFDC-U Registrants Determined to Need Basic Education: GAIN's First- and Second-Year Impacts on Earnings and AFDC Payments 183

FIGURE

1 Client Flow Within an 11-Month Follow-up Period for 100 Typical AFDC-FG Registrants Determined to Need Basic Education xxviii

1.1 Hypothesized Effects of GAIN for Those Determined to Need Basic Education 4

1.2 Simplified Depiction of the GAIN Program Model 7

2.1 Map of California Showing the Six Counties Participating in the GAIN Impact Research 15

2.2 Overview of the Intake and Random Assignment Process for the GAIN Evaluation 21

2.3 Research Samples for the GAIN Study of Those Determined to Need Basic Education 27

3.1 County Differences in Selected GAIN Implementation Practices and Conditions 46

3.2 Client Flow Within an 11-Month Follow-up Period for 100 Typical AFDC-FG and 100 Typical AFDC-U GAIN Experimentals Determined to Need Basic Education 48

3.3 First Activity for AFDC-FG Experimentals Determined to Need Basic Education Who Started Any GAIN Activity 55

3.4 For Basic Education Participants: Monthly Status Within 12 Months After GAIN Orientation 83

4.1 For Those Determined to Need Basic Education: Monthly Participation in ABE/GED, by Research Group and AFDC Status 93

FIGURE **PAGE**

5.1 For Those Determined to Need Basic Education: GAIN's Impacts on Earnings for the Early Cohorts of AFDC-FG Registrants 137

B.1 Coverage Periods for Key Data Sources for Study of Those Determined to Need Basic Education 157

D.1 For Those Determined to Need Basic Education: Monthly Participation Levels in ABE/GED for AFDC-FG Survey Responders, by Research Status and County 176

ABBREVIATIONS

ABE	Adult Basic Education
ADA	Average Daily Attendance
AFDC	Aid to Families with Dependent Children
AFDC-FG	Aid to Families with Dependent Children – Family Group
AFDC-U	Aid to Families with Dependent Children – Unemployed Parent
CAI	computer-assisted instruction
CASAS	Comprehensive Adult Student Assessment System
CDSS	California Department of Social Services
COE	County Office of Education
EDD	Employment Development Department
ESL	English as a Second Language
ETS	Educational Testing Service
FSA	Family Support Act (1988)
GAIN	Greater Avenues for Independence Program
GED	General Educational Development certification (high school equivalency)
IM	Income Maintenance office
JOBS	Job Opportunities and Basic Skills Training Program
JTPA	Job Training Partnership Act (1982)
MDRC	Manpower Demonstration Research Corporation
MFSP	Minority Female Single Parent Demonstration
PIC	Private Industry Council
PREP	Pre-Employment Preparation
SWIM	Saturation Work Initiative Model (San Diego)
TABE	Tests of Adult Basic Education
TALS	Test of Applied Literacy Skills
UI	Unemployment Insurance

EXECUTIVE SUMMARY

A central goal of recent federal and state welfare reform initiatives has been to assist welfare recipients to become employed and move toward self-sufficiency. However, as documented in several studies, poor basic literacy skills are a chronic problem for many of those in poverty and receiving welfare, diminishing their chances of competing effectively in the labor market. An important policy response has been to provide them with basic education – classes in Adult Basic Education (ABE), which focus on reading and mathematics; preparation for the General Educational Development (GED) test; and instruction in English as a Second Language (ESL).

This report presents findings about the operation and educational effects of a welfare-to-work program that puts a considerable emphasis on mandatory basic education services: California's statewide Greater Avenues for Independence (GAIN) Program, which began operations in 1986 and is targeted to recipients of Aid to Families with Dependent Children (AFDC). For welfare recipients whom GAIN determines to need basic education – 65 percent of those GAIN served during the period of this study – the program emphasizes participation in basic education as a condition for receiving welfare. It must be stressed that this is not an evaluation of adult education services as they are normally delivered: to people who seek them out and participate in them voluntarily.

GAIN broke new ground by mandating basic education for large numbers of people. In giving basic education a prominent role, and in other respects as well, GAIN was an important precursor of federal welfare reform legislation – the Family Support Act of 1988 and its centerpiece, the Job Opportunities and Basic Skills Training (JOBS) Program, which is the major source of federal funding for state welfare-to-work programs. Lessons on the operation and effects of GAIN are relevant to welfare reform broadly because California has the country's biggest AFDC caseload and GAIN is the largest and one of the most ambitious of all the states' JOBS programs. It is also one of few such programs to mandate basic education for large numbers of welfare recipients.

This is the seventh in a series of reports from an ongoing random assignment evaluation of GAIN's effectiveness, which is being conducted by the Manpower Demonstration Research Corporation (MDRC) under a contract from the California Department of Social Services (CDSS).[1] Six California counties are included in the evaluation: Alameda, Butte, Los Angeles, Riverside, San Diego, and Tulare. Together, they account for more than one-third of the state's GAIN caseload and more than one-half of its AFDC caseload. The present report is based mainly on a sample of more than 2,500 welfare recipients, in five of those six counties (all but Butte), who met GAIN's criteria for needing basic education. They include both single heads of families with children age six or older (AFDC-FGs, who are usually mothers) and heads of two-parent families (AFDC-Us, who are typically fathers).[2] These individuals became part of the evaluation's research sample between March 1988 and June 1990, and the descriptions of county programs apply to the way they were operated prior to mid-1991. The report draws on previously completed analyses and also presents new data based on a survey of these recipients and the results of a literacy test, both of which were administered to them two to three years after they became part of the research sample.[3] This summary focuses primarily on the results for the AFDC-FG (single-parent) registrants, who constitute a large majority of AFDC recipients.

---

[1] The previous reports are: John Wallace and David Long, *GAIN: Planning and Early Implementation* (New York: MDRC, 1987); James Riccio, Barbara Goldman, Gayle Hamilton, Karin Martinson, and Alan Orenstein, *GAIN: Early Implementation Experiences and Lessons* (New York: MDRC, 1989); Karin Martinson and James Riccio, *GAIN: Child Care in a Welfare Employment Initiative* (New York: MDRC, 1989); Stephen Freedman and James Riccio, *GAIN: Participation Patterns in Four Counties* (New York: MDRC, 1991); James Riccio and Daniel (continued...)

Highlights of the Findings

The feasibility of providing basic education through GAIN. All six of the California counties in the GAIN evaluation were able to operate the program's basic education component on a relatively large scale. The county GAIN programs established the necessary linkages with schools, and the schools were able to enroll the new population of mandatory GAIN participants, provide them with classes that offered an "opportunity to learn" (as measured by conventional standards), and, for the most part, monitor students' attendance and performance. In San Diego, a major effort was made to tailor the services to the specific needs of GAIN participants by creating a new county-wide education program to serve them exclusively.

Rates and duration of participation in basic education. Fifty-eight percent of GAIN registrants determined to need basic education were referred by GAIN to a basic education program. Of those referred, 71 percent (41 percent of all those judged to need basic education) actually attended such a

---

[1] (...continued)
Friedlander, *GAIN: Program Strategies, Participation Patterns, and First-Year Impacts in Six Counties* (New York: MDRC, 1992); and Daniel Friedlander, James Riccio, and Stephen Freedman, *GAIN: Two-Year Impacts in Six Counties* (New York: MDRC, 1993).

[2] The research sample does not include AFDC-FGs (single parents) with preschool-age children, many of whom become mandatory for GAIN under JOBS regulations in 1989.

[3] It is beyond the scope of this report to discuss GAIN's impacts on employment and welfare receipt over a longer follow-up period than has been presented in previous reports (most recently in Friedlander, Riccio, and Freedman, 1993) or to link the education outcomes to labor market results. Analysis of these issues will be addressed in the evaluation's final report, scheduled for 1994.

program. Those who were not referred – or, if they were referred, did not attend – fell into several categories. Many were temporarily excused from GAIN or had left GAIN because they became employed, experienced health problems, or had other reasons that were acceptable according to the GAIN legislation. Others were referred to activities other than basic education, primarily job search. Still others were continuing, with GAIN's approval, in post-secondary or vocational education and training activities they had begun prior to entering GAIN. The GAIN program provided a considerable amount of basic education: Those who participated attended classes for roughly eight months, on average, during a two- to three-year follow-up period. However, participants were in class for only about 60 percent of their scheduled hours, on average, indicating that, even with intensive monitoring procedures, attendance was not consistent.

GAIN's education impacts. This report considers two kinds of education outcomes, based on a study in five of the six evaluation counties. (Butte was not included in this part of the research because resources for survey and test administration were limited.) One outcome is educational *attainment*, which, in the context of this study, refers to passing the GED test[4] (or, in some cases, receiving a high school diploma). The other is educational *achievement*, which (again in the present context) denotes an increase in literacy and mathematical skills as gauged by scores on a literacy test. In the five counties, the educational effects (or "impacts") of GAIN were measured by comparing the educational attainment and achievement of two groups of welfare recipients: one group (the experimental group), who were given access to GAIN's services and were subject to its participation mandate, and another, similar group of welfare recipients (the control group), who were not eligible for the program and were not subject to its participation mandate, but who could participate in other services in the community on their own. It is very important to note that, as discussed above, many experimental group members did not participate in the basic education services provided through GAIN. However, the impacts in this report pertain to the entire group determined to need basic education – both those who participated and those who did not.

Impacts on attainment of a GED. GAIN was successful in increasing GED receipt for program registrants in all five counties that were in the study of GAIN's education impacts. The impacts in four of these counties were statistically significant. Tulare produced a very large (19 percentage point) impact and Alameda produced a relatively large (8 percentage point) impact; the impacts in Los Angeles and Riverside were small; and San Diego's impact (4 percentage points) was in the middle. The GED impacts were concentrated among the individuals who were the most literate when they entered GAIN. For them, GAIN appears to have provided an accessible route for acquiring relatively quickly the specific knowledge needed to pass the GED test. Those at lower literacy levels tended to participate in ABE (i.e., remedial reading and mathematics) classes; relatively few of them entered GED preparation programs.

---

[4] Individuals who pass the GED test receive a state high school equivalency certificate.

Impacts on literacy test scores. This study also analyzed whether GAIN increased the basic skills levels of welfare recipients as measured using a literacy test – the Test of Applied Literacy Skills (TALS). (The test was administered only in English, so those individuals in the sample who were not proficient in English were not tested.) San Diego's GAIN program produced large and statistically significant impacts on TALS scores. No other county produced measurable impacts, and there was no impact for all counties combined, although small test score gains may have gone undetected. As was true of the GED impacts, basic skills increases were concentrated among individuals who had the highest levels of literacy when they entered GAIN; these were also individuals who spent relatively shorter periods of time in basic education classes. It is possible that those at lower literacy levels may have made gains that were not captured by the TALS, or perhaps this group may need more than the considerable amount of education they received to substantially improve their skills. Nonetheless, the results raise questions about whether the basic education services provided through GAIN were appropriate for less literate students.

The results from San Diego and Tulare offer evidence that it is feasible for large-scale, mandatory JOBS programs to produce a substantial impact on GED receipt and basic skills levels. Both counties made special efforts to gear their programs specifically toward the educational needs and circumstances of welfare recipients. The contrasting results for the other counties suggest that achieving education impacts, although possible, may require strenuous efforts to identify, implement, and maintain effective program practices.

In the three counties that produced modest to large impacts on GED receipt or basic skills levels – Alameda, San Diego, and Tulare – the GAIN program, in the short run (i.e., within the available two-year follow-up period), did not result in employment and earnings impacts for those determined to need basic education. However, in Alameda and Tulare, results for a small group of these individuals who became part of the research sample early on, and for whom there are three years of follow-up data, suggest a possible growth in earnings impacts beginning just after the second year of follow-up and increasing into the third. Results from longer follow-up, which will be presented in the evaluation's final report, will clarify whether GAIN's investment in basic education shows promise of paying off in the labor market.

The GAIN Model

GAIN is overseen by CDSS and administered by California's 58 counties. A key feature of the program is its use of the education and basic skills levels of welfare recipients to sort them into one of two treatment streams. Those who do not have a GED certificate or a high school diploma, *or* who fail to achieve a minimum score of at least 215 on both a reading test and a mathematics test (the CASAS tests, developed by the Comprehensive Adult Student Assessment System), *or* who are not proficient in English are defined as "in need of basic education" and are required to attend a basic education program. They may choose to participate in job search first, but if they do not find a job, they must then participate in basic education.

The other registrants – those determined to be "*not* in need of basic education" – usually must participate in job search first. Registrants who are already enrolled in education or training programs when they enter GAIN may continue if the programs meet certain criteria. Participants who do not find employment after completing their initial activities undergo an employability assessment designed to help them choose their next activity: skills training, vocationally oriented post-secondary education, on-the-job training, or unpaid work experience. Registrants who do not participate in their assigned activities are subject to a "sanction," i.e., a reduction in their welfare grant.

For those determined to need basic education, three types of basic education are available through GAIN: (1) ABE programs, which provide remedial reading and mathematics for those with lower skills levels (typically at or below the eighth-grade level), (2) GED preparation programs for students whose academic skills are strong enough to allow them to study productively for the GED test, and (3) ESL instruction, which teaches people who are not proficient in English to read and speak the language.

The Policy Context

GAIN represented a new approach to welfare reform – one that emphasized large-scale mandatory participation in basic education services in addition to the job search and unpaid work experience components that were the focus of most welfare employment programs in the 1980s. While the earlier programs produced modest increases in earnings and reductions in welfare receipt, and did so cost-effectively, they did not move substantial numbers of people off welfare. Moreover, those who did leave welfare often remained poor. Studies also suggest that programs that provided primarily job search assistance often were unable to increase the earnings of the most disadvantaged.

GAIN, in contrast, was structured so that, rather than seeking work immediately, participants who were considered to need basic education would "invest" in those activities in anticipation of future economic gains. Since education has been shown to be strongly correlated with income, policymakers reasoned that this approach, although more expensive in the short run, would lower the costs of welfare in the long run by increasing departures from AFDC, especially if the more disadvantaged recipients thereby left welfare, and by reducing the rate at which former recipients returned to the welfare rolls.

Previous studies, however, offer little guidance about whether a large-scale welfare-to-work program that emphasizes mandatory participation in basic education would be feasible to operate or effective. Historically, adult education programs have been geared toward individuals who voluntarily enrolled and were motivated to return to school. In contrast, many GAIN registrants have had negative experiences in school, including school failure and dropping out, and may be reluctant to return. Schools and the GAIN program faced many challenges in working with this new population of mandatory students – what types of services to offer, how much education to provide, and how to monitor and encourage attendance. This report is intended to inform some of these issues regarding the operation and effects of basic education in the GAIN program.

The GAIN Evaluation

The GAIN evaluation, which began in 1986, is conducted in six counties, which represent a wide variety of local conditions and, as noted above, account for more than one-third of the state's GAIN caseload and more than one-half of its AFDC caseload. Three counties are in southern California: Los Angeles, with about one-third of the state's AFDC caseload and a welfare population larger than that of all but a few states'; San Diego, with the state's second-largest AFDC caseload; and Riverside, a large county encompassing both urban and rural areas. Two counties are in northern California: Alameda, an urban county that includes the City of Oakland, and, further north, the mid-sized county of Butte. The final county, Tulare, is located in the largely agricultural, rural Central Valley.

It is worth reiterating that this report's descriptions of the counties' strategies for implementing GAIN are based on data collected no later than mid-1991, and prior to that in most cases. This is the relevant information for describing the "treatment" those in the research sample experienced. However, some of the information does not portray the counties' *current* modes of operating GAIN. All of the counties have continued to revise their strategies as they have become more experienced in operating this very complex welfare-to-work initiative, and in response to changes in funding and other circumstances.

The evaluation uses a random assignment research design to assess the GAIN program. In this design, all mandatory registrants who were referred to the GAIN program in the research counties from March 1988 to June 1990 were assigned, at random, to the experimental group or the control group.

Because registrants were assigned to these two groups at random, there were no systematic differences between them except for the fact that one group was subject to the GAIN mandate and the other was not. Thus, as the evaluation tracks members of the two groups over time, any measured differences between them in the amount of education received, educational attainment and achievement, employment, or AFDC receipt can be attributed with confidence to GAIN.

During the period in which members of the research sample registered for GAIN, four of the six counties had sufficient resources to extend the program's requirements and services to all registrants in their caseload who were mandatory for GAIN under the pre-JOBS rules. The other counties – Alameda and Los Angeles – focused exclusively on long-term recipients.

As already noted, this report focuses exclusively on one group of welfare recipients from the overall GAIN evaluation: those determined to need basic education. The GAIN evaluation's analysis of welfare and employment impacts is based on a research sample of approximately 33,000 GAIN-mandatory AFDC-FGs and AFDC-Us, from the six research counties, who were randomly assigned to the experimental or control group. Of this number, roughly 21,000 were determined to need basic education. To collect information on participation in basic education and receipt of a GED or a high school diploma, MDRC surveyed a subset of approximately 2,500 of these 21,000 welfare recipients (both experimentals and controls) in five of the six counties (all but Butte) two to three years after random assignment. To measure educational achievement, a literacy test was administered at the time of the survey to about 1,100 of these 2,500 individuals. The test used in this analysis consists of two sections of the Test of Applied Literacy Skills (TALS), developed by the Educational Testing Service (ETS). The TALS uses written materials of the sort encountered in everyday life – such as schedules, maps, and want ads – to gauge the test-taker's ability to understand such materials and to solve problems based on them (the problems in the quantitative part of the test require arithmetic solutions). After consultation with experts, the TALS was selected for the evaluation because of its appropriateness for disadvantaged adults and its high statistical reliability. Also, because a version of this test has been used in a recent national literacy assessment, use of the TALS makes it possible to compare the scores of GAIN registrants to those of other groups. The study also relies on data from GAIN casefiles, school attendance records, and field research.

Interpreting the Results of This Study

In weighing the evidence about GAIN's education effects provided in this report, it is important to understand the kinds of questions this study was and was not designed to answer, the inherent difficulty of measuring educational achievement, and, therefore, the importance of using caution in attempting to generalize these findings to other JOBS or basic education programs.

First, as discussed above, the GAIN program *mandates* basic education for large numbers of welfare recipients. This distinguishes it from most other JOBS programs, which provide basic education only to those who choose this activity. The effects of basic education for those who volunteer may be quite different from the effects for those who are required to participate if they are to avoid the possible loss of part of their AFDC grant. In particular, these results do not represent JOBS programs that offer basic education on a more selective basis or adult education programs that provide services to a non-welfare population.

Second, this report does not evaluate basic education activities alone. Rather, it examines the effects of the entire package of GAIN's services and mandates for those who were determined to need basic education. Basic education is the most important activity in this package, but not all who were judged to need it participated. In this report, basic education impacts are averaged over the full "in need of basic education" sample -- those who participated in basic education (for both long and short periods) as well as those who did not.

Third, this report examines only two of the effects of basic education in a JOBS program: increased basic skills and attainment of a GED or a high school diploma. It does not measure other possible effects of basic education, such as the improved well-being of participants' children, a better-informed citizenry, or increased self-esteem. This study also contains no information on the costs of providing basic education in GAIN, which will be examined in the final evaluation report.

Fourth, the question of increased educational achievement is addressed but not answered definitively by this study owing to measurement issues. Unlike attainment of a credential (such as a GED), educational achievement is difficult to define and measure. Although the TALS is considered a good indicator of the skills needed to accomplish tasks in everyday life or in the workplace, it may have some limitations. While the TALS was designed to measure performance across a broad range of literacy levels, it is possible that the TALS was not sensitive enough to pick up achievement gains among those at very low literacy levels. It may also be that the TALS measures skills that are different from those that were taught and learned in GAIN basic education classes. The effects of unmeasured increases in skills may show up later in earnings gains.

The size of the TALS sample also limits the ability of the study to measure educational achievement. The testing was intended to measure achievement impacts for the sample as a whole, not for individual counties or subgroups. Because the sample sizes for the test score analysis for counties or subgroups are small, these estimates can only describe the direction and approximate order of magnitude of county and subgroup impacts, not their precise amounts. In addition, the sample is not large enough to capture small educational gains. It is possible that achievement gains of a policy-relevant magnitude were made by some of those who participated in basic education, but by too few to appear clearly in the overall experimental-control comparison.

Finally, the motivation of sample members to score high on the tests needs to be considered. TALS test-takers did not face the same incentives as GED test-takers. Passing the GED test is seen by most GED test-takers as a step toward obtaining higher earnings. However, TALS test-takers may have been less motivated to do their best. This may have been particularly true for those at lower literacy levels, for whom any academic skills test would present a difficult challenge.

Findings on the Basic Education Services and Systems

- **The adult education systems were able to accommodate the GAIN students and to provide them with an "opportunity to learn." The students usually received the same services available to other adults in the community.**

The six counties were able to accommodate the influx of GAIN students primarily by relying on the existing education services in the community and in some cases by expanding them. This was possible, in part, because California has the nation's largest adult education system. Typically, GAIN students were offered the standard basic education programs available to other adult education students in the community, and few changes were made in the services previously provided. ABE and ESL classes generally used individualized instruction. GED programs focused exclusively on the GED test.

"Opportunity to learn" is a concept education analysts often use when they attempt to gauge the quality of education programs. MDRC's field research indicates that, by conventional standards, the education programs in all six counties provided such an opportunity: There were very few capacity problems, so students could receive services; the services were geared toward individuals' educational needs and used established methods and curricula; and the classes were held for a sizable number of hours per week (usually 15 to 20) on a continuing basis.

- **In San Diego, the basic education services were redesigned on a county-wide basis specifically to meet the needs of GAIN students.**

In San Diego, and in a few schools elsewhere, efforts were made to improve the basic education services provided to GAIN students through the use of both additional funding and different curricula and instructional methods. San Diego's program was built on the premise that the existing adult education services were not appropriate for the GAIN population because of their previous negative experiences in school. The new program was designed and funded by a consortium of agencies – school districts, the welfare department, and the Private Industry Council (PIC). It consisted of an entirely new network of Learning Centers (i.e., classrooms) designed specifically and exclusively for GAIN students. Key features included up-to-date computer-assisted learning combined with classroom instruction, integrated academic and life skills instruction, off-campus classroom locations to reinforce the idea of a fresh opportunity, a new teaching staff, and a class for learning disabled students. In an effort to enhance accountability, another county, Riverside, developed and funded performance-based payments with several schools for the provision of basic education services.

- **Schools and the county GAIN programs found it difficult to establish reliable attendance reporting systems, which were needed to monitor and enforce registrants' participation. However, these systems developed and improved over time.**

GAIN's participation mandate required registrants to attend their assigned activities on a continuous basis until they left or were officially excused from the GAIN program. This meant that schools had to establish new procedures for monitoring attendance and performance, and for communicating this information to the GAIN program. A number of schools and counties found the new reporting systems to be very burdensome and experienced difficulty producing timely information on registrants who were experiencing participation problems.

Some counties eventually overcame these difficulties by dedicating resources specifically for intensive monitoring systems. Two counties stand out in their efforts to improve attendance. In San Diego, designated case managers were given caseloads consisting only of individuals assigned to basic education activities. These case managers spent two or three days a week at schools, assisting participants and trying to resolve attendance problems. In addition, school staff in San Diego contacted absent students, usually on the very day of the absence. In Tulare, the GAIN program employed "transition counselors," whose primary responsibility was to achieve good attendance among GAIN students. Tulare also established a uniform attendance monitoring system for all schools; several schools called participants each day they did not attend to see if the schools could remove barriers or resolve problems.

During the study period, Riverside adopted a somewhat different approach. As discussed in previous MDRC reports, Riverside's GAIN program had a strong emphasis on quick entry into the labor market. Consistent with this emphasis, registrants who were not attending regularly were sometimes transferred from a basic education activity to a job search activity – i.e., those with poor attendance were urged to find jobs if they did not want to attend school. While not a uniform policy, such transfers occurred more often in Riverside than in the other counties.

Findings on Participation Patterns in Basic Education

This discussion of participation patterns is based on (1) GAIN casefiles and attendance records from education providers, covering an 11-month follow-up period, and (2) a survey of sample members, covering a two- to three-year follow-up period. (The survey, as noted above, did not include Butte.)

- **A sizable proportion – 41 percent – of the AFDC-FG GAIN registrants who were determined to need basic education actually attended a basic education program within an 11-month follow-up period. Participation rates varied substantially among the counties.**

Figure 1 shows the participation patterns (averaged across the six counties) for a typical group of 100 AFDC-FG GAIN registrants who were determined to need basic education. Fifty-eight of 100 registrants were referred to an education activity, and 41 (71 percent of the 58) participated in the activity within an 11-month follow-up period. The participation rates were highest in Alameda, Los Angeles, and Tulare (ranging from 45 to 55 percent). Similar rates were found for AFDC-U registrants.

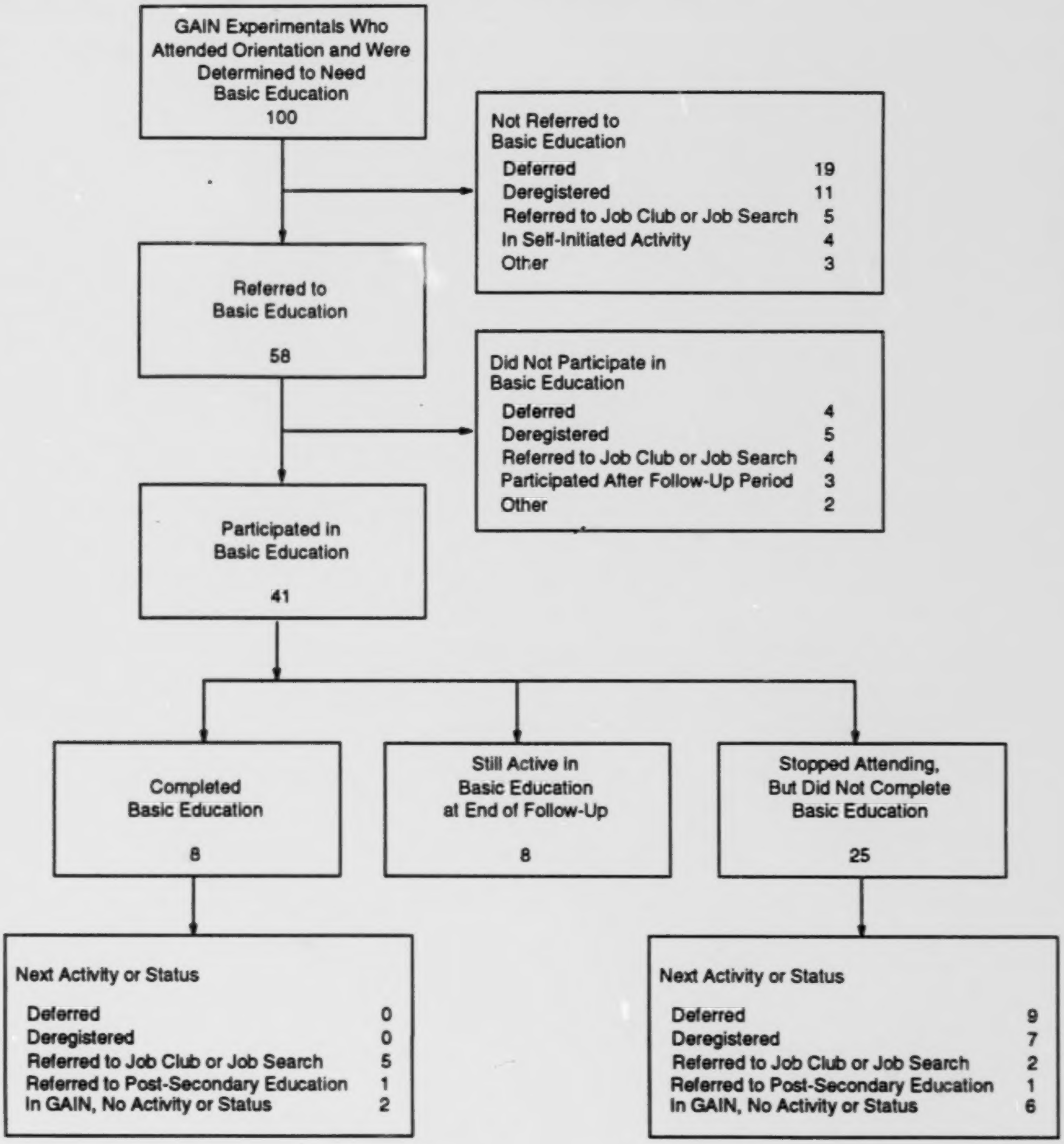
Reflecting its more disadvantaged and non-English-speaking GAIN population, Los Angeles had a low proportion of participants in GED and a large proportion in ESL. In contrast, Tulare had a relatively large proportion of registrants attending GED programs.

- **The principal reasons for nonparticipation in basic education were consistent with the GAIN legislation. Therefore, in some counties, much higher rates of participation would not have been feasible.**

As shown in Figure 1 (i.e., in the "not referred to basic education" and "did not participate in basic education" boxes), there were two primary reasons for not participating in basic education programs. First, many registrants did not enter an education activity within the 11-month follow-up period because they were temporarily deferred from the GAIN program; they had a part-time job, a temporary illness, or another situation that precluded their attending an activity. Second, some registrants left the GAIN program (i.e., they were deregistered) before they participated in a basic education activity because they obtained a full-time job, became chronically ill, or left AFDC. Also, some registrants chose or were referred to another service, particularly job search. This occurred most commonly in Riverside and San Diego. Still other registrants fulfilled the participation mandate by continuing, with GAIN's approval, in "self-initiated" post-secondary or vocational education or training activities.

FIGURE 1

CLIENT FLOW WITHIN AN 11-MONTH FOLLOW-UP PERIOD FOR 100 TYPICAL AFDC-FG REGISTRANTS DETERMINED TO NEED BASIC EDUCATION


GAIN Experimentals Who Attended Orientation and Were Determined to Need Basic Education
100
Not Referred to Basic Education
Deferred 19
Deregistered 11
Referred to Job Club or Job Search 5
In Self-Initiated Activity 4
Other 3
Referred to Basic Education
58
Did Not Participate in Basic Education
Deferred 4
Deregistered 5
Referred to Job Club or Job Search 4
Participated After Follow-Up Period 3
Other 2
Participated in Basic Education
41
Completed Basic Education
8
Still Active in Basic Education at End of Follow-Up
8
Stopped Attending, But Did Not Complete Basic Education
25
Next Activity or Status
Deferred 0
Deregistered 0
Referred to Job Club or Job Search 5
Referred to Post-Secondary Education 1
In GAIN, No Activity or Status 2
Next Activity or Status
Deferred 9
Deregistered 7
Referred to Job Club or Job Search 2
Referred to Post-Secondary Education 1
In GAIN, No Activity or Status 6

- **Twenty percent of those who participated in basic education completed their activities within an 11-month follow-up period. Approximately 60 percent stopped attending without completing the activity. The remaining 20 percent were still participating in the activity at the end of the follow-up period.**

At the time this study was conducted, the state provided only broad guidelines for determining when participants had completed basic education in GAIN, and individual schools and counties developed their own completion standards. (Statewide completion standards were developed and implemented later.) Only in GED programs, where the program is completed when the registrants pass the GED test, were the completion standards clear. No similar guidelines existed for ABE and ESL courses. Los Angeles and San Diego were the only programs with uniform county-wide exit procedures for ABE and ESL (using a specified score on a standardized test as the exit criterion).

Figure 1 shows what happened to AFDC-FG registrants once they started a basic education activity. Within an 11-month period, 8 of 41 (20 percent) completed their education activity (according to school records), with most of these individuals going on to a job search activity; 25 of 41 (61 percent) stopped attending the basic education activity without finishing it, usually because they were deferred or deregistered from GAIN for reasons such as employment or health problems; and 8 of 41 (20 percent) were still participating in the activity at the end of the 11-month follow-up period. These completion and exit rates will have changed somewhat as participants continued to complete or leave basic education activities after the 11-month follow-up period covered in this analysis.

San Diego had the highest completion rate, with close to 40 percent of its participants completing their ABE or GED activities.[5] The county's concrete and uniform exit standards may have been a factor in achieving these rates, since teachers and participants were working toward a well-defined goal.

- **Basic education participants reported that they attended their basic education programs for roughly one school year (8 months) over a two- to three-year follow-up period.**

Measures of length of stay are important from a policy perspective because they represent one way of gauging the "investment" made by GAIN in human capital development. Table 1 presents the average number of months basic education participants attended their programs, according to their responses on the survey. AFDC-FG participants attended their activities for longer periods in Alameda, Los Angeles, and Tulare (ranging from 9 to 11 months) than in Riverside and San Diego (6 months). (Again, Butte was not included in the survey.) AFDC-U participants attended for slightly longer than did AFDC-FGs.

---

[5] Completion data were not available in Alameda or Los Angeles.

TABLE 1

FOR BASIC EDUCATION PARTICIPANTS: NUMBER OF MONTHS ATTENDING AND AVERAGE WEEKLY SCHEDULED HOURS IN BASIC EDUCATION ACTIVITIES, WITHIN A TWO– TO THREE–YEAR FOLLOW–UP PERIOD

	AFDC–FGs						AFDC–Us
Measure	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Average number of months in basic education activities	8.7	11.3	5.5	5.6	9.1	8.0	8.8
Percentage distribution of number of months in basic education activities							
Less than 2 months	8.3	9.4	24.0	23.5	13.8	15.8	19.0
2–6 months	43.5	25.0	52.0	52.9	31.3	40.9	30.5
7–12 months	26.9	34.4	17.3	14.7	31.3	24.9	32.9
13–18 months	13.0	10.9	1.3	5.9	10.0	8.2	6.1
19–24 months	3.7	15.6	4.0	2.9	12.5	7.8	1.8
25 months or more	4.7	4.7	1.3	0.0	1.3	2.4	9.8
Average weekly scheduled hours in basic education activities	15.9	24.2	17.7	24.1	17.4	19.8	19.5
Sample size	108	64	75	68	80	395	44

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: Basic education activities include GED preparation, ABE, and ESL.
The AFDC–U sample does not include any registrants from Alameda.
The "all county" estimate is the average of the county estimates, with each county weighted equally.
Distributions may not add to 100.0 percent because of rounding.

Almost 60 percent of the AFDC-FG participants stayed less than 6 months, and 18 percent attended for a year or more. ABE/GED participants attended for an average of 8 months,[6] while ESL participants attended longer, averaging 10 months over the two- to three-year follow-up period (not shown in the table).

The county differences in length of stay reflect both program practices and the nature of the caseload each county served. Alameda and Los Angeles served long-term AFDC recipients exclusively. These recipients tended to stay on welfare for longer periods during the follow-up period and thus were available to participate in basic education longer. In addition, the programs in these counties, as well as in Tulare, placed more emphasis on maintaining participation in education activities. In contrast, Riverside's program urged registrants to enter the labor market quickly, which contributed to the shorter stays in education programs in this county.

- **More disadvantaged groups – those at lower literacy levels when they entered GAIN and long-term AFDC recipients – reported that they attended their basic education activities for a longer period of time than did less disadvantaged groups.**

Those who scored below 215 on both the reading and mathematics CASAS tests when they entered GAIN participated in ABE/GED for a significantly longer period than did those who scored higher (9 versus 6 months).[7] Those who had been on AFDC for two years or more also had longer stays in basic education than did short-term recipients or AFDC applicants. This indicates that stays will be particularly long for those at lower economic and education levels, because they require more education and also tend to stay on welfare, and thus in GAIN, longer.

- **Basic education participants reported that their classes were scheduled for 16 to 24 hours per week. Los Angeles and San Diego represented the top of that range.**

Basic education participants in Alameda, Riverside, and Tulare reported on the survey that their education classes were scheduled for 16 to 18 hours per week, whereas participants in San Diego and Los Angeles reported scheduled hours of 24 per week It is important to note the intensity of the program in San Diego. As stated above, San Diego participants stayed in basic eduction activities for a shorter time than did those in three of the other counties. However, because the San Diego participants had more scheduled hours per week, they were enrolled for about as many total hours of education as were participants in most counties that averaged longer stays in basic education (not shown in the table). Los Angeles, with a relatively long length of stay and a relatively high number of scheduled hours per week, stands out as having provided the largest amount of basic education.

---

[6] The survey did not distinguish between ABE and GED activities.

[7] According to CASAS, those who function below 215 are at low literacy levels and have difficulty pursuing programs or jobs other than those that require only minimal literacy skills. Those at or above the 215 level are able to handle tasks requiring basic literacy and computational skills.

- **Basic education participants were in the classroom for 10 hours per week, on average – roughly 60 percent of their scheduled hours. Weekly attendance was higher (16 hours per week) in San Diego, where classes were scheduled for more hours per week and more intensive monitoring was provided.**

The investment in basic education can also be gauged by the regularity of school attendance. Actual weekly hours in the classroom ranged from 55 to 65 percent of scheduled hours across three of the study counties – Riverside, San Diego, and Tulare.[8] San Diego, which had intensive monitoring procedures, achieved the highest attendance rate of the three. In a mandatory basic education program for welfare recipients, such monitoring procedures may be required to achieve even these moderate rates of attendance. It also appears to be important to organize instruction so that it is beneficial even when attendance is inconsistent – i.e., so that students who miss some classes are still able to profit from the instruction.

Findings on GAIN's Impacts on Participation in Basic Education and on Education Outcomes

As discussed earlier, to determine GAIN's educational effects, the experience of registrants who were randomly assigned to the experimental group was compared to that of registrants who were randomly assigned to the control group. The *differences* between the two groups – in terms of participation in basic education, educational attainment, and educational achievement – represent the education impacts of the program.

- **Among those determined to need basic education, GAIN substantially increased the proportion of experimental group members who participated in such activities. Few control group members participated in basic education.**

Previous research on welfare-to-work programs has shown that some welfare recipients participate in education programs on their own initiative. Understanding how much GAIN increased participation beyond what registrants do on their own is important for interpreting the education impacts presented in this report. Across all five counties in the survey, GAIN was successful in producing large increases in the number of individuals who received basic education, above and beyond the number who received the service in the absence of the program. As shown in Table 2, 44 percent of the AFDC-FG experimentals reported that they participated in ABE/GED compared to 8 percent of the controls, for a difference of 35 percentage points.[9] Some members of the experimental group also participated in the job search and unpaid work experience activities offered through GAIN, which were not available to control group members. GAIN did not influence the degree to which post-secondary education or vocational training was used above and beyond what individuals did on their own (not shown in the table).

---

[8] These calculations could not be made for Alameda, Butte, or Los Angeles because of data limitations.

As noted above, those who attended a basic education program received a substantial amount of education. GAIN's impact on the amount received is measured by comparing the average length of stay in basic education for the experimental and control groups, including sample members who did not participate in those activities (they are counted as zero in the averages). This comparison shows that, over the course of the two- to three-year follow-up period, experimentals participated for an average of 2.4 months, while controls averaged only 0.4 months. These impacts were largest in Alameda, Los Angeles, and Tulare and smallest in Riverside and San Diego. GAIN's effects on the amount of basic education received were greater for the more disadvantaged segments of the caseload: those with lower initial literacy levels and longer AFDC histories

- **GAIN produced statistically significant impacts on the receipt of a GED or a high school diploma in four of the five counties. Tulare produced particularly large impacts, and the results in Alameda were also substantial. Impacts in the other counties were modest or small.**

Table 2 shows the proportion of AFDC-FG experimentals and controls who received a GED or a high school diploma after random assignment.[10] Across the five counties in the survey, 9 percent of experimentals obtained one these credentials during the follow-up period compared to 2 percent of controls, for a difference (i.e., impact) produced by GAIN of 7 percentage points. Tulare achieved a striking impact: a 19 percentage point difference between experimentals and controls. This was followed by an 8 percentage point impact for Alameda and a 4 percentage point impact in San Diego. The impacts in the other counties were smaller. In all five counties, individuals generally acquired a GED rather than a high school diploma.

The varying impacts reflect differences in the counties' programs.[11] The programs in Alameda

---

[9] The survey estimates of participation rates for experimentals and controls were adjusted slightly upward, based on data from GAIN casefiles, to reflect underreporting of education activities on the survey.

[10] About one-quarter of the AFDC-FG survey respondent sample already had a GED or a high school diploma before random assignment.

[11] The variation in impacts on receipt of a GED or a high school diploma across counties was statistically significant at the .01 level.

TABLE 2

FOR AFDC–FGs DETERMINED TO NEED BASIC EDUCATION: GAIN's IMPACTS ON PARTICIPATION IN ABE/GED AND ON CREDENTIAL RECEIPT, WITHIN A TWO– TO THREE–YEAR FOLLOW–UP PERIOD

Outcome and Subgroup	Sample Size	Experimentals (%)	Controls (%)	Difference
Ever participated in ABE/GED				
All counties	2,258	43.6	8.4	35.3 (a)
County				
Alameda	466	64.7	12.4	52.3 (a)
Los Angeles	389	33.8	6.5	27.3 (a)
Riverside	582	30.5	5.9	24.6 (a)
San Diego	380	33.6	6.5	27.2 (a)
Tulare	441	55.6	10.7	44.9 (a)
Received a GED or high school diploma after GAIN orientation				
All counties	2,258	9.1	2.0	7.1 ***
County				
Alameda	466	8.9	1.2	7.7 ***
Los Angeles	389	2.7	0.5	2.2 *
Riverside	582	6.2	3.6	2.6
San Diego	380	6.8	2.6	4.2 *
Tulare	441	20.8	1.8	19.0 ***
Baseline score on CASAS reading and math tests				
215 or above on both	505	25.2	5.4	19.7 ***
214 or below on one	966	6.3	1.2	5.1 ***
214 or below on both	326	1.5	0.0	1.5
No scores	461	1.0	0.5	0.5
Sample size (total = 2,258)		1,207	1,051	

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: Calculations for this table used data for all survey responders, including those who did not participate in basic education.

The "all county" estimate is the average of the county estimates, with each county weighted equally.

Sample members are missing CASAS test scores primarily because they are not proficient in English.

A two–tailed t–test was applied to differences between the experimental and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) Statistical tests were not performed for this measure.

and Tulare are notable for their emphasis on assigning registrants to basic education programs. Both counties also placed a high priority on the acquisition of a GED (even for students in ABE programs), and almost half of Tulare's GAIN participants attended a GED program. Tulare's exceptionally large impact, which could not be explained by differences in the demographic characteristics of its sample compared to the samples for the other counties, may also be attributable in part to its counseling services, its close monitoring of participants, and the particular education services offered by its providers.

- **Impacts on receipt of a GED or a high school diploma were concentrated among those at higher initial literacy levels.**

Table 2 shows the rate of credential receipt for sample members who were at different literacy levels at the time of random assignment. Those with a score of 215 or higher on both the reading and mathematics CASAS tests when they entered the research sample had a 20 percentage point impact on receipt of a GED or a high school diploma, whereas those who scored below this level on either test had a 5 percentage point impact. Sample members scoring below 215 on both CASAS tests and those having no CASAS test results (primarily because they could not read English) had no impacts on credential receipt. However, Tulare, in contrast to the other counties, produced substantial GED impacts for the large group that scored below 215 on one of the CASAS tests as well as very large impacts on the group that scored 215 or above on both tests. Interestingly, those at higher literacy levels spent less time in basic education than did those at lower literacy levels. Thus, impacts on educational attainment were achieved, for the most part, by the group with the smaller investment in education.

Those with higher initial literacy skills may have had (or were close to having) the academic skills needed to master the material for the GED test, despite having dropped out of school. For them, the GAIN program may have provided an accessible route for acquiring the specific knowledge they needed to pass the test. The program may have also provided the necessary support services (such as child care), moral support, or "push" these individuals needed to pass the GED test. Those at lower initial literacy levels were more likely to participate in ABE programs and generally did not make the transition to GED programs (except, to some extent, in Tulare and Alameda). There were several possible reasons for this: Obtaining a GED may not have been the GAIN program's educational goal for them (consistent with the GAIN regulations, some counties encouraged participation in job search after completion of ABE); or they may not have reached satisfactory basic skills levels in the program; or they may have left the program before they made sufficient gains to enter a GED program.

These findings suggest that the nature of the caseload served may affect the ability of a program to obtain GED impacts. For example, Los Angeles served a population with a relatively high proportion of non-English speakers and individuals at low literacy levels. While its program had positive effects for those at higher literacy levels, this county served comparatively few such individuals. For many registrants in Los Angeles, GED preparation may not have been encouraged by the program, or obtaining a GED may take longer than the follow-up period.

- **For the five counties as a group, GAIN did not produce impacts on basic skills levels, as measured by the TALS literacy test. Estimates show positive impacts on basic skills levels in San Diego, however.**

To measure GAIN's impacts on educational achievement, two parts of the TALS, measuring somewhat different literacy skills, were administered to experimentals and controls who were determined to need basic education (including those who did not actually participate in basic education) two to three years after random assignment. (As noted above, those who were not proficient in English were not included in the testing.) The "document literacy" part of the test is designed to measure the ability to process information found in documents such as schedules, tables, and charts. For example, one item requires the test-taker to locate a building using a map and its legend. The "quantitative literacy" part of the test is designed to measure the ability to understand written materials and to apply the appropriate arithmetic operations to solve problems presented in those materials. For example, one item asks the test-taker to calculate a daily wage using a want ad that lists an hourly wage.

As discussed above, the size of the TALS sample was planned to be large enough to measure the achievement impact for all five counties as a group. The top row of Table 3 shows average TALS scores (document plus quantitative) for AFDC-FG experimentals and controls in all counties. Any difference between these averages is attributable to the GAIN program. However, the results show a difference of 1.8 points, implying that there was virtually no program impact on basic skills levels for all counties as a group.

The TALS sample was not expected to be large enough to give precise estimates of impacts for each county separately or for each subgroup. Estimates for counties and subgroups may, however, indicate the direction and approximate order of magnitude of their impacts. For San Diego, Table 3 shows a TALS score difference of 34 points, or 36 percent of a standard deviation. This indicates that the San Diego GAIN program had a large TALS score impact. However, the exact size of the impact remains uncertain because the San Diego sample was small (60 experimentals and 54 controls). In Riverside, the experimental-control difference was negative and statistically significant. This negative estimate may not fully reflect a real program effect but may, instead, have been magnified by an experimental-control difference in the percentage of each research group that took the TALS test and could therefore be included in the TALS analysis sample. A difference in test-taking between research

TABLE 3

FOR AFDC-FGs DETERMINED TO NEED BASIC EDUCATION: GAIN's IMPACTS ON TALS SCORES, WITHIN A TWO- TO THREE-YEAR FOLLOW-UP PERIOD

		TALS Score (Document Plus Quantitative)			
Subgroup	Sample Size	Experimentals	Controls	Difference	Difference/ Standard Deviation
All counties	1,115	475	473	1.8	1.9%
County				x	
Alameda	334	482	480	2.3	2.5%
Los Angeles	186	449	445	3.7	3.9%
Riverside	233	488	507	-19.0 * (a)	-20.0%
San Diego	114	488	454	33.8 **	35.6%
Tulare	248	468	478	-10.2	-10.8%
Baseline score on CASAS reading and math tests				xxx	
215 or above on both	308	544	526	17.6 *	18.7%
214 or below on one	549	478	476	2.2	2.3%
214 or below on both	224	388	406	-17.1	-18.0%
Sample size (total = 1,115)		595	520		

SOURCE: MDRC calculations using GAIN TALS data.

NOTES: Calculations for this table used data for all TALS test responders, including those who did not participate in basic education.

Estimates are regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepanices in calculating sums and differences.

The "all county" estimate is from a regression in which each county is weighted equally.

Sample sizes for the CASAS subgroups do not sum to the total sample size because a small proportion of individuals are missing CASAS scores, primarily because they were not proficient in English and could not take the CASAS tests. Thus, impacts for these individuals are not shown; the full distribution of impacts is given in Chapter 5.

A two-tailed t-test was applied to differences between the experimental and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

An F test was applied to subgroup differences in "difference" estimates. Statistical significance levels are indicated as xxx = 1 percent; xx = 5 percent; x = 10 percent.

(a) The negative estimate in Riverside may have been affected by differences in the percentage of experimentals and controls who took the TALS and who therefore could be included in the TALS impact sample. Such differences in test-taking were statistically significant only in Riverside.

groups was large and statistically significant only in Riverside. The difference may have created unmeasured differences in the characteristics of experimentals and controls in the TALS sample in that county.[12] The all-county estimate of the TALS score impacts excluding Riverside (not shown in the table) is 6.9 points, not statistically significant.

Table 3 also shows that TALS score impacts accrued mainly to sample members who had scored highest on the CASAS tests (which were administered at the time of random assignment), and this group took less than the average time in basic education to achieve these basic skills gains (not shown in the table). In contrast, the group that started out at relatively low literacy levels did not achieve TALS score impacts, even though this group spent more time in basic education. This same concentration of TALS impacts among subgroups with higher initial literacy levels, found in the pooled sample across all counties, was also found in San Diego alone.

Although the data available for this study do not explain why those starting at lower literacy levels did not experience achievement gains, several possible explanations are worth considering: The educational gains for this group may not have been large enough to be measured by this analysis; this group may not have received a sufficient amount of education to improve substantially their skills levels; or the education services provided may not have been effective in producing gains for this group. It could also be that the sample members achieved gains that were not measured by the TALS test.

Some caution should be used when interpreting these impact estimates. Overall, the sample for the all-county average was large enough to rule out the possibility of generally large TALS score impacts *per experimental;* however, it was not large enough to rule out the possibility of modest impacts on education *participants*. In other words, while achievement gains could have been made by those who participated in basic education, they may have been too small or made by too few to appear in the experimental-control comparison. In addition, the fact that some counties increased GED receipt without producing measurable increases in basic skills levels (or vice versa) indicates the importance of distinguishing between educational attainment and achievement goals, since each can be realized independently of the other.

- **Over a two-year follow-up period, the education impacts did not translate into welfare and employment impacts. However, the results for an early-**

---

[12] An experimental-control difference in the percentage of TALS test-takers does not necessarily imply that impact estimates will be biased. Moreover, using the characteristics of sample members in the regression adjustment procedure can correct for observed research group differences. Baseline CASAS scores, in particular, provided a powerful set of regression control variables in the TALS impact analysis.

enrolling sample suggest the importance of further follow-up to determine the payoff of GAIN's investment in basic education.

In the counties that produced impacts on educational achievement or attainment (Alameda, San Diego, and Tulare), the GAIN program did not result in earnings and employment impacts, for those determined to need basic education, within the two-year follow-up period that is available for the full sample at this time. For AFDC-FG sample members determined to need basic education, only two of the six counties studied in the evaluation of GAIN's earnings, employment, and welfare impacts – Butte and Riverside – produced statistically significant earnings impacts within a two-year period, although most of the six counties were successful in achieving welfare savings for this group.[13] Riverside's GAIN program, which uses both job search and basic education services and has a strong focus on quick employment, had a more immediate effect on employment and earnings, but little effect on education outcomes. Data on education outcomes were not collected in Butte, which was not part of the survey effort.

Results for a small group of individuals who became part of the research sample early on, and for whom three years of follow-up data are available, suggest, however, that the two-year impacts may not be indicative of the longer-term effects of basic education in GAIN. In Alameda, Los Angeles, and Tulare, the early sample shows a possible growth in earnings impacts beginning just after the second year of follow-up and increasing into the third. Thus, longer follow-up is needed to determine whether the investment in basic education will pay off in the labor market.[14]

Policy Implications

This report presents results regarding the feasibility and effects of *mandatory* basic education provided through a JOBS program. (These findings do not apply to basic education provided in a voluntary context.) The results provide concrete evidence that such a program can increase the number of AFDC recipients who obtain a GED (or, in some cases, a high school diploma). It is possible for such increases to be large. However, the considerable county variation – ranging from very large impacts in Tulare to no impacts in some other counties – suggests that aggressive efforts need to be made if this goal is to be attained. The GAIN program in Tulare placed a high priority on maintaining participation in basic education and on obtaining a GED, carried out intensive monitoring, and provided support while students were in school.

---

[13] GAIN's two-year earnings, employment, and welfare impacts are presented in detail in Friedlander, Riccio, and Freedman, 1993.

[14] Preliminary estimates of third-year impacts for AFDC-FG sample members judged in need of basic education indicate statistically significant earnings gains appearing for the first time in Tulare, increasing earnings gains in Alameda (not statistically significant), and continuing earnings gains in San Diego (not statistically significant). These estimates were produced from data that became available after the completion of the research presented in this report. Further data collection and additional analysis of longer-term impacts on earnings and AFDC payments are planned for 1994.

It is more difficult to answer definitively the question of whether, and to what extent, the GAIN program can increase educational achievement – i.e., literacy and mathematics skills. The size of the TALS sample was sufficient for measuring relatively large achievement gains, but small gains may have escaped detection. Despite this limitation, the results from San Diego suggest that it may be possible to tailor basic education services to the special needs and circumstances of AFDC recipients and to produce sizable impacts on educational achievement. However, producing these results may require comprehensive adaptations to the program structure and curricula. San Diego's approach merits further study, although widespread replication on the basis of empirical results from one sample of this size would not be warranted.

Overall, the findings point to at least three areas that merit the attention of policymakers and program operators.

Adapting education services for welfare recipients. The experience in San Diego, and to some extent in Tulare, suggests that adult education programs may require special adaptations when they are part of a mandatory, large-scale welfare-to-work program such as GAIN. First, if educational improvements are sought, then it is important to make the improvement of specific education outcomes – GED receipt and/or achievement gains – a high priority of the program. Both San Diego and Tulare focused on specific outcomes and adopted numerous strategies to attain them. Second, to foster regular attendance, it may be necessary to provide substantial counseling, monitoring, and support services for students, as both San Diego and Tulare systematically did. Third, at least for those individuals at relatively high levels of literacy when they entered the program, the San Diego experience suggests the value of providing basic education courses that are intensive (i.e., classes meet many hours a week) if students' attendance is also carefully monitored and supported. Fourth, the results suggest the importance of adapting the curriculum to the needs of GAIN students, many of whom have had negative experiences in school. In San Diego, this was done by hiring a specially selected teaching staff, integrating academic and life skills, and using up-to-date computerized instruction combined with classroom instruction. Finally, obtaining a high completion rate for basic education activities may be crucial, requiring well-defined completion standards.

Encouraging GED acquisition for those at higher literacy levels. This study provides evidence that GED certificates may be obtained relatively quickly for many program registrants who are already at or near the literacy levels needed to master the specific knowledge required to pass the test. While the utility of the GED in the labor market needs further study, assigning people with higher literacy levels to GED instruction may yield substantial short-term education impacts.

Providing effective services for those at lower literacy levels. This study raises questions about how existing adult education programs, which normally serve a voluntary population, can be structured or adapted to produce educational gains for the less-skilled segments of the welfare population. Individuals with lower levels of basic skills stayed in basic education programs for relatively long periods of time, and those programs provided them with an "opportunity to learn," as judged by conventional standards. Although the analysis was limited in its ability to measure modest achievement gains for this group, the results do indicate that any education impacts GAIN had for them were not large. This may mean that the amount and type of education services received were not effective for those at low literacy levels, particularly given the inconsistent attendance patterns observed in this study. Different and perhaps more comprehensive services may be needed to produce results for this group.

The final report on the GAIN evaluation will measure the program's impacts over a longer follow-up period, providing further information on the relationship between basic education services and labor market outcomes. It will also explore new data on a number of outcomes (e.g., the characteristics of jobs obtained) and provide estimates of the program's benefits and costs.

CHAPTER 1

INTRODUCTION

This is the seventh in a series of reports on the effects of California's Greater Avenues for Independence (GAIN) Program, which the Manpower Demonstration Research Corporation (MDRC) is evaluating under contract to the California Department of Social Services (CDSS).[1] GAIN, which began operations in 1986, aims to increase employment and foster self-sufficiency among people receiving Aid to Families with Dependent Children (AFDC), the major federal/state cash welfare program. Operating in all 58 California counties, GAIN is one of the most ambitious welfare-to-work initiatives in the United States.

In July 1989, the GAIN program, with a few modifications, became California's version of the national Job Opportunities and Basic Skills Training (JOBS) Program. In accordance with the JOBS legislation (the Family Support Act of 1988), GAIN's mandate was broadened to include single parents of preschool-age children ages three to five (in addition to those who had children above age five) and, in some cases, the second parent in two-parent families.[2]

Among GAIN's chief innovations is its emphasis on mandatory, upfront basic education services. Welfare recipients who are determined to need basic education because they are lacking in basic skills (as determined by a literacy test), do not have a high school diploma or a General Educational Development (GED) certificate, or are not proficient in English are required to attend a basic education program or else be subject to a reduction in their welfare grant. These individuals may choose instead to participate in job search activities, but if they do not find a job, they must then attend basic education classes. The GAIN model is based on the belief that many welfare recipients will be able to function more effectively in the labor market if their basic skills levels are increased or if they obtain an education credential. GAIN allocates substantial resources to providing basic education to registrants who have been judged to need it, and this service plays a far larger and more important role than it has in previous welfare-to-work programs.

---

[1] MDRC's previous reports on GAIN are: John Wallace and David Long, *GAIN: Planning and Early Implementation* (New York: MDRC, 1987); James Riccio, Barbara Goldman, Gayle Hamilton, Karin Martinson, and Alan Orenstein, *GAIN: Early Implementation Experiences and Lessons* (New York: MDRC, 1989); Karin Martinson and James Riccio, *GAIN: Child Care in a Welfare Employment Initiative* (New York: MDRC, 1989); Stephen Freedman and James Riccio, *GAIN: Participation Patterns in Four Counties* (New York: MDRC, 1991); James Riccio and Daniel Friedlander, *GAIN: Program Strategies, Participation Patterns, and First-Year Impacts in Six Counties* (New York: MDRC, 1992); and Daniel Friedlander, James Riccio, and Stephen Freedman, *GAIN: Two-Year Impacts in Six Counties* (New York: MDRC, 1993).

[2] Single parents are in the AFDC-FG (Family Group) program; two-parent families are in the AFDC-U (Unemployed Parent) program.

Recent MDRC reports on GAIN have examined its implementation practices, participation patterns, and welfare and employment impacts for different types of welfare recipients served by the program. *This report focuses exclusively on GAIN's effects on one group of welfare recipients – those who were determined to need basic education* (both single parents and heads of two-parent families) and were therefore targeted for the mandatory, upfront basic education component. It draws on previously completed analyses as well as new data based on a survey of a sample of these recipients and the results of a literacy test, both of which were administered to them two to three years after they attended a GAIN orientation session and became part of the study. The report examines these individuals' experiences in basic education and the resulting education outcomes. Specifically, the study examines the proportion of welfare recipients who actually attended basic education programs, reporting on how much education they received, which groups received the most intensive education services, and what effect GAIN had on GED receipt (or, in some cases, receipt of a high school diploma) and on basic skills levels, as measured by the scores on the literacy test. This report also has important implications for the JOBS program, which offered states new incentives for providing basic education and expanded its role in their welfare-to-work programs.[3]

The remainder of this chapter discusses the policy significance of GAIN's mandating basic education services, briefly describes the GAIN program model, presents relevant findings from previous MDRC reports on GAIN, and provides an overview of the issues addressed in this study.

I. The Policy Context

At the time the GAIN program was implemented, it represented a different approach to welfare reform – one that emphasized the provision of basic education services in addition to the job search and, to a lesser extent, unpaid work experience components that were the focus of most welfare employment programs in the 1980s. While the earlier programs increased earnings and reduced welfare receipt somewhat, and did so cost-effectively, research indicates that they did not move substantial numbers of individuals off the welfare rolls and that those who did leave often remained poor.[4] These studies also suggest that programs consisting primarily of job search assistance often were not able to increase th earnings of the most disadvantaged.

---

[3] In most other JOBS programs, however, welfare recipients have more choice as to their initial activity, and basic education is a voluntary option.

[4] Gueron and Pauly, 1991.

The structure of the GAIN program reflects in part the belief that improving these results must begin with the recognition that welfare recipients lack the basic skills or credentials to participate effectively in the labor market. Indeed, studies clearly show that welfare recipients often have poor basic skills and that education is strongly correlated with income.[5] The GAIN model – particularly because of its upfront mandatory basic education component but also through its provision of skills training and post-secondary education – offers more opportunity for human capital investment than did typical welfare-to-work programs of the past. Although, in the short run, participants would be forgoing opportunities to work and "investing" in education in the anticipation of future returns, policymakers reasoned that this type of model would be more effective in reducing poverty in the long run, as outlined in Figure 1.1.

As the diagram illustrates, the mandatory nature of basic education in GAIN is expected to produce increased levels of participation in basic education services as well as in other types of employment-related services (particularly job search). The quality of the education provided and the amount and intensity of the education and other services received are expected to determine the extent to which this intervention will be successful in increasing welfare recipients' basic skills levels (i.e., their educational "achievement") and acquisition of a GED, high school diploma, or other credential (i.e., their educational "attainment"). If few recipients participate, if services are of low quality, or if insignificant amounts of education are received, the program could not be expected to affect education outcomes.[6]

Increases in achievement and attainment, in turn, are expected to lead to increased employment and earnings, employment in higher-quality jobs, decreased welfare receipt, and, potentially, the improved well-being of recipients' children (through higher family income or the improved education levels of their parents). Although more expensive in the short run, this type of model aims to expand the employment opportunities available to welfare recipients and decrease the rate at which former recipients return to the rolls. By reducing recidivism, the approach would decrease the cost of welfare in the long run.

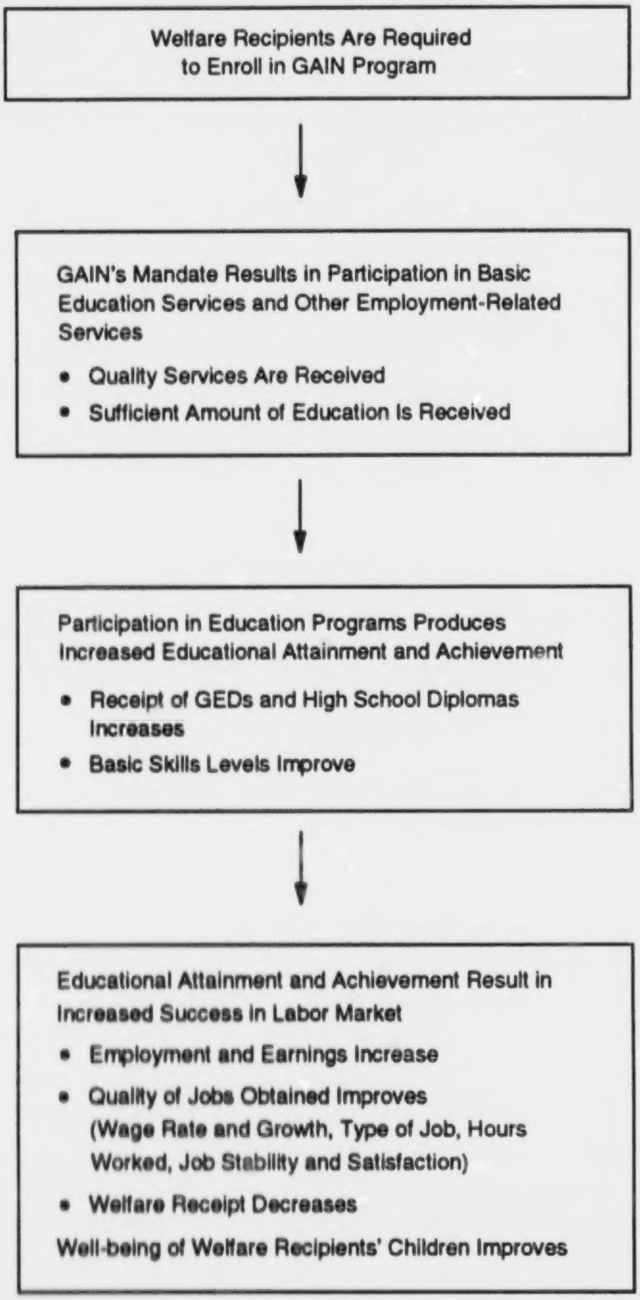
---

[5] Mincer, 1989; Berlin and Sum, 1988; Kirsch et al., 1993.

[6] There can be low levels of participation and inadequate amounts of education services for a number of reasons ranging from an insufficient supply of services in the community to the resistance of some registrants toward returning to school.

FIGURE 1.1

HYPOTHESIZED EFFECTS OF GAIN FOR THOSE DETERMINED TO NEED BASIC EDUCATION



Welfare Recipients Are Required to Enroll in GAIN Program

GAIN's Mandate Results in Participation in Basic Education Services and Other Employment-Related Services

- Quality Services Are Received
- Sufficient Amount of Education Is Received

Participation in Education Programs Produces Increased Educational Attainment and Achievement

- Receipt of GEDs and High School Diplomas Increases
- Basic Skills Levels Improve

Educational Attainment and Achievement Result in Increased Success in Labor Market

- Employment and Earnings Increase
- Quality of Jobs Obtained Improves (Wage Rate and Growth, Type of Job, Hours Worked, Job Stability and Satisfaction)
- Welfare Receipt Decreases

Well-being of Welfare Recipients' Children Improves

When interpreting the effects of the GAIN program, it should be stressed that basic education is not the only service offered by GAIN to those determined to need it. As noted above, recipients can choose to participate in job search instead, although if they do not find a job, they are required to participate in basic education. Also, as described later in this chapter, GAIN offers support services, case management, and an assessment to determine subsequent activities including training, work experience, or additional education. Moreover, as discussed in this report, the welfare system in California is administered by individual counties, which differ in the degree to which they emphasize the two upfront options (job search and basic education) and the manner in which they present these options to recipients.

Previous studies provide little evidence as to the effectiveness of large-scale welfare-to-work programs that emphasize participation in basic education in increasing the educational achievement and attainment and income of welfare recipients.[7] Nor is much known about the feasibility of operating this type of program – particularly, how many individuals will participate in basic education services; how much and what kind of education they require and how much they will receive; whether the school systems can meet the needs of this mandatory population, in terms of both classroom space availability and the nature of the education provided; and whether improvements in basic skills will be sufficient to translate into increased employment and earnings.

These are particularly difficult questions to answer. Little is known about the effectiveness of existing basic education services in assisting the general adult population in need of basic education (not just welfare recipients) to achieve long-term economic independence. Moreover, virtually all human capital studies have been based on data for individuals who voluntarily decide to acquire additional education. In contrast, the GAIN population is under a mandate to attend an education program. Many members of this group will have had previous negative experiences in school, including school failure and dropping out, and some may be reluctant to return to school. They also may lack the motivation, confidence, and school-relevant skills possessed by those who volunteer for education services. Thus, it is difficult to know a priori whether and how the GAIN model will produce its intended outcomes.

---

[7] The evaluation of the Minority Female Single Parent (MFSP) Demonstration, which studied low-income minority single mothers, found earnings gains within a one-year follow-up period for a program integrating job-specific skills training with basic education services. Other programs in the demonstration, which required participants to take basic education courses before entering job-skills training, did not achieve similar early gains. (See Burghardt and Gordon, 1990.) While these results are important, it should be noted that MFSP was a voluntary program run by community-based organizations. GAIN, which is a mandatory, county-operated program, could produce different results.

II. The GAIN Model

The GAIN model begins at the county welfare department's Income Maintenance (IM) office. (Figure 1.2 illustrates the basic sequences in simplified form.) Here, when determining initial or continuing eligibility for AFDC, the staff register GAIN-mandatory AFDC applicants and recipients for GAIN and offer to register recipients who are GAIN-exempt but might wish to volunteer for the program. As indicated above, the pre-JOBS rules defining mandatoriness for GAIN exempted single parents with children under the age of six, a group that accounts for about two-thirds of all single-parent AFDC recipients. No such exemption existed for the heads of two-parent families.

After registration, eligibility workers refer new registrants to the GAIN office for orientation and appraisal. At orientation, the opportunities and obligations of the program are explained, and the registrant takes basic reading and mathematics tests developed by the Comprehensive Adult Student Assessment System (CASAS) organization.[8] As part of the appraisal interview, the assigned case manager reviews the registrant's background characteristics, including circumstances that might prevent her or him from participating in GAIN, and determines a preliminary employment goal. The registrant is then either referred to a GAIN activity or "deferred" (i.e., temporarily excused from participating). GAIN's support services, such as child care and transportation, are arranged at this time if the registrant needs them to take advantage of the program's activities.[9] Participation in GAIN is expected to continue until the individual finds employment, leaves AFDC, or is no longer required to participate for other reasons. Failure to comply with program rules can result in a "sanction" (i.e., a reduction or termination of the monthly welfare grant).[10]

As noted above, not all those who attend an orientation are expected to take part in a GAIN activity. GAIN's regulations permit temporary deferral from the participation requirement for those who have a part-time job, temporary illness, family emergency, or another situation that, according to the GAIN legislation, precludes attending an activity. Welfare recipients are also not required to remain

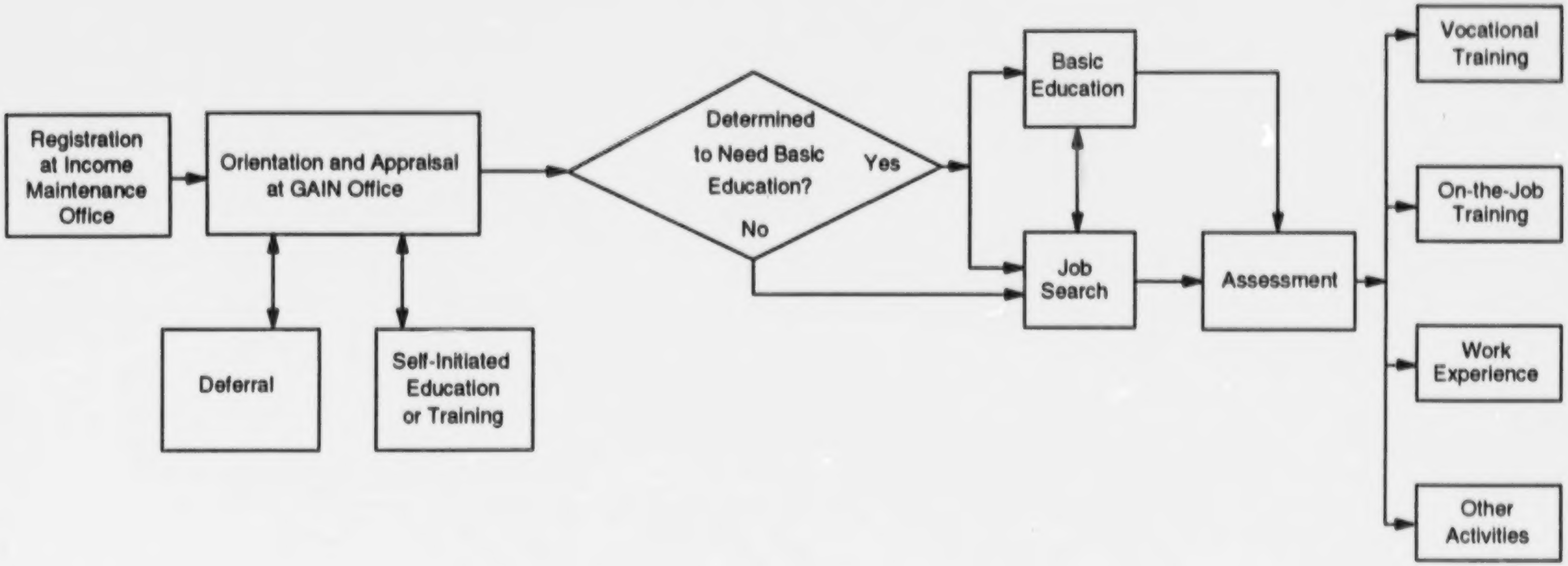
---

[8] CASAS is a nonprofit organization based in San Diego.

[9] GAIN helps registrants find, and pays for, child care services for children who are under the age of 13 – assistance that continues for a one-year transitional period if the registrant leaves welfare for employment. GAIN also reimburses program participants for relevant public transportation costs (unless a car is essential) including transportation for their children to and from a child care facility. Participants may also receive up to $450 for program-related expenses such as tools and books. Finally, GAIN funds can be used to identify the need for counseling for personal or family problems that arise from or hinder participation in the program or employment and to make an appropriate referral. For details on GAIN's support services, see Riccio et al., 1989.

[10] Prior to JOBS, registrants who were heads of two-parent families lost their entire grant if they were sanctioned, whereas single parents lost only the parent's (not the children's) portion of the grant. Under JOBS, the heads of two-parent families who are sanctioned similarly lose only the parent's share of the grant.

FIGURE 1.2
SIMPLIFIED DEPICTION OF THE GAIN PROGRAM MODEL


Registration at Income Maintenance Office
Orientation and Appraisal at GAIN Office
Deferral
Self-Initiated Education or Training
Determined to Need Basic Education?
Yes
No
Basic Education
Job Search
Assessment
Vocational Training
On-the-Job Training
Work Experience
Other Activities

NOTE: Registrants can leave the GAIN program at any point because of employment or deregistration from GAIN for other reasons.

registered for GAIN if they meet certain exemption criteria such as getting a full-time job (of at least 30 hours per week) that does not pay enough to make a person ineligible for AFDC or being chronically ill. These individuals are "deregistered" (i.e., officially removed) from the program, as are those who leave AFDC entirely for employment or other reasons. Still others who *are* expected to participate but choose not to may be sanctioned.

As shown in Figure 1.2, GAIN has two primary service tracks. Registrants who lack a high school diploma or a GED, score below 215 on either the reading or mathematics CASAS basic skills test,[11] or are not proficient in English are determined by GAIN regulations to be "in need of basic education."

Depending on their skills levels, individuals will potentially enroll in one of three kinds of basic education programs: (1) GED preparation programs, which are designed for students whose academic levels are high enough to enable them to study productively for the GED test; (2) Adult Basic Education (ABE) programs, which provide remedial reading and mathematics for those whose skills levels are lower (typically, at or below the eighth-grade level); or (3) English as a Second Language (ESL) programs, which provide basic reading and language instruction to individuals who are not proficient in English. As noted above, registrants on this track may elect job search assistance instead, but if they do not find a job, they must then enroll in a basic education class. Alternatively, they may choose to participate first in basic education and then in job search, or they may elect to pursue job search and basic education concurrently.

The second track is for registrants who are determined "not in need of basic education" (i.e., they have a high school diploma or a GED, pass both the reading and mathematics CASAS tests, and are deemed to be proficient in English). They are usually referred first to a job search activity. Job search activities include job club – group training sessions in which participants learn basic job-seeking and interviewing skills – and supervised job search, in which participants have access to telephone banks, job listings, employment counseling, and other assistance under staff supervision. Job search activities usually last for three weeks.

A third track is available for registrants who began an education or training activity *prior* to attending an orientation and appraisal (and irrespective of whether their appraisal determined them to need basic education). At the appraisal session, the registrant's case manager decides whether the activity furthers the registrant's employment goal. If the decision is positive, the case manager may authorize the registrant to continue attending the program as a GAIN activity and to be eligible (for no more than two years) for GAIN's support services. Such an activity is referred to in GAIN as "self-initiated" education or training.

---

[11] A score lower than 215 on the reading or mathematics test is a criterion used by the GAIN program to determine that individuals are in need of basic education. According to CASAS, those who function below 215 are at low literacy levels and have difficulty pursuing programs or jobs other than those that require only minimal literacy skills. Those at or above the 215 level are able to handle basic literacy and computational tasks.

Registrants who complete their upfront activities without having found a job must participate in a formal assessment of their career plans and work out an individual employment plan. They are then referred to "post-assessment" activities intended to further their employment plan. Possible activities include vocational or on-the-job training, unpaid work experience (or "workfare," which in GAIN is referred to as PREP),[12] supported work,[13] or other forms of education and training. For some individuals, a 90-day job search follows the post-assessment activity; they seek work on their own and periodically report to GAIN staff. If this fails to lead to a job, registrants are assessed again and another activity is selected.

In most of California's 58 counties, GAIN operates through a network of service providers in the community, with the welfare department at the center. Typically, the county welfare departments register people for GAIN, manage the overall program, provide case management, develop PREP positions (rarely used during the participation follow-up period covered by this report), and, in some cases, conduct job clubs and other job search activities. With a few exceptions, the rest of GAIN's program functions and services are the responsibility of agencies outside the welfare department. For example, adult schools – and sometimes community colleges and other organizations – supply basic education services, often using state Job Training Partnership Act (JTPA) "8 percent funds" (i.e., funds set aside for education, a portion of which, in California, was earmarked specifically for GAIN participants). Community colleges, proprietary schools, regional occupational centers, and JTPA vendors typically provide vocational education and training. Also, in many counties, the local offices of the state's Employment Development Department (EDD) operate GAIN's job club and other job search components. In addition, most counties rely on local child care resource and referral agencies (although to different degrees) to help registrants find child care and often to make arrangements with child care providers. Frequently, the GAIN staff also take part in this process.

---

[12] PREP (Pre-Employment Preparation) is unpaid work experience in a public or nonprofit agency in exchange for the recipient's welfare grant. PREP assignments can be short-term, lasting up to three months, or long-term, lasting up to one year. The number of hours of the work assignment are determined by adding the recipient's grant (less any child support the noncustodial parent has paid to the county) and the Food Stamp allotment, and dividing that sum by the statewide average hourly wage. PREP work assignments may not exceed 32 hours per week.

[13] Supported work is paid work experience, in a group setting, for participants with little work history. It is characterized by close on-site supervision, peer support, and gradually increased responsibilities. A closely associated activity is transitional employment, which provides less intensive supervised training in a work setting. Neither of these activities was used in the six research counties during the period covered by this report.

III. Interim Impact Findings from the GAIN Evaluation

The evaluation of GAIN's effects (or impacts) uses an experimental research design and is based on a study of six counties: Alameda, Butte, Los Angeles, Riverside, San Diego, and Tulare. As illustrated in Table 1.1, the May 1993 report presented GAIN's impacts on employment, earnings, and welfare receipt in these counties over a two-year follow-up period.[14] The analysis presented here does not include additional information about those impacts because further data are not yet available and the intent of this report is to focus on education-related outcomes. To provide context, however, the results from the May 1993 study are briefly summarized here.

For the entire sample of single parents with children over the age of five (including parents in need and not in need of basic education), GAIN produced earnings gains and welfare savings through the second year of follow-up. The results varied considerably across the six counties studied, with one county (Riverside) having had unusually large two-year impacts and another county (Tulare) having had virtually no impacts. The other four counties also produced significant impacts in the first year, although not always on earnings *and* welfare payments.

In contrast to the results for the entire sample, for single parents determined to need basic education, only two counties – Butte and Riverside – produced statistically significant earnings gains within a two-year period, although five counties achieved welfare savings for this subgroup. However, because basic education is a longer-term investment, the full extent of its contribution to impacts, if any, might not be seen until future years. As discussed in the May 1993 report and later in this report, some preliminary evidence, based on a small group of people determined to need basic education who became part of the research sample at an early stage of the study, suggests that earnings impacts may remain strong in Riverside for this subgroup in the third year of follow-up and may actually increase not only in Butte, but also in Alameda, Los Angeles, and Tulare as well. Hence, the counties' impacts for those in need of basic education may grow over time. This as well as other issues will be addressed in the final evaluation report, which is scheduled for 1994.

---

[14] See Friedlander, Riccio, and Freedman, 1993.

TABLE 1.1

RESEARCH SAMPLES AND SELECTED TOPICS COVERED IN 1993/94 MDRC GAIN EVALUATION REPORTS

May 1993 Report

Report included all single parents (AFDC-FGs) with children above age five and all heads of two-parent families (AFDC-Us).

Topics:

- Participation patterns in all GAIN activities; program implementation strategies.
- Two-year welfare and employment impacts; three-year impacts for early cohort.

This Report

Report includes single parents (AFDC-FGs) with children above age five and heads of two-parent families (AFDC-Us) who were determined to be in need of basic education according to GAIN criteria.

Topics:

- Levels of participation in education, amount of education received, and description of education services provided.
- Two- to three-year impacts on educational achievement and attainment.
- Two-year welfare and employment impacts; three-year impacts for early cohort.

Final Report (Spring 1994)

Report will include all single parents (AFDC-FGs) with children above the age of five (and a small sample with children ages three to five) and all heads of two-parent families (AFDC-Us).

Topics:

- Three-year welfare and employment impacts; four-year impacts for early cohort.
- Information on wage levels and types of jobs obtained.
- Benefit-cost analysis.

IV. An Overview of This Report

In sum, the aim of this report is to analyze the educational experiences of and outcomes for GAIN registrants who were determined to need basic education, and thereby to take an important step toward understanding the longer-term employment and welfare results for this group, which will be presented in the final report. Drawing on both the new data and the earlier analyses in the GAIN evaluation, this report examines the following questions:

- **To what extent did the GAIN program increase the participation of welfare recipients in basic education services above and beyond what they would have done on their own?** The study examines the effect of GAIN on how extensively welfare recipients participated in basic education services by comparing their experiences with those of a control group that did not have access to GAIN's services. The report also examines what factors limit the use of education services by GAIN registrants.

- **Did the education services offered through GAIN provide a reasonable opportunity for learning to take place?** This is assessed by examining the features of the education programs, the types of activities the education services included, and service adaptations that were made for the GAIN population.

- **How much education did participants receive?** This report goes beyond past reports' primary focus on rates of participation by measuring the amount of education received, particularly how long participants attended their basic education programs and how many hours of services they received within a two- to three-year period. It also provides information on what type of welfare recipients participated for the longest periods of time and the attendance patterns of basic education participants.

- **Was the GAIN program successful in increasing welfare recipients' basic skills levels and their receipt of education credentials?** This study presents impact results for these education outcomes and also examines the type of welfare recipients for whom the GAIN program had the greatest effect in increasing basic skills levels and receipt of a GED (or a high school diploma).

- **In all of the above respects, were there noteworthy differences among the research counties?** Previous MDRC reports on GAIN have revealed striking differences across counties, in terms of both program implementation and impacts. This report continues the exploration of differences in county programs and outcomes, and offers some hypotheses about what implementation approaches may yield stronger education impacts.

A supplementary goal of this analysis is to assess whether, with respect to basic education, the GAIN model received a "fair test" – i.e., whether it was implemented in a manner that would be expected to produce the intended education outcomes. For example, if few welfare recipients were offered education services or if the services were of poor quality, there would be little reason to expect results. It is also important to determine whether an adequate amount of education was received and, if not, whether this was driven by programmatic issues (such as insufficient capacity) or welfare recipient issues (such as welfare turnover or resistance to participating in services).[15]

It is important to understand some of the inherent limitations of this study. First, this report does not provide an evaluation of the basic education activities per se. Rather, it examines the effects of the GAIN program as a whole for those who were determined to need basic education. Also, it does not address the effects of basic education provided to those who volunteer for the service; rather, it studies the results of this service when provided through a mandatory welfare-to-work program. Finally, owing partly to the relatively short follow-up period, this report does not fully address the relationship between educational achievement and attainment and economic outcomes such as employment, earnings, and the characteristics of jobs obtained. This relationship will be discussed in the evaluation's final report.[16]

This report consists of five chapters. Chapter 2 describes in detail the research design for the study, the data sources used in the analysis, and the demographic characteristics of the GAIN sample who were deemed in need of basic education. Chapter 3 documents the GAIN treatment for those determined to need basic education and describes the "opportunity to learn" provided by the education programs offered through GAIN. It focuses on what happened to individuals who enrolled in GAIN (and thus reports only on results for the experimental group), including the extent to which they took advantage of the education services, how long and how intensively participants attended these activities, how this varied by subgroup, and the extent to which they completed the activities. These are important dimensions in assessing whether the GAIN model was given a fair test.

Chapter 4 examines how much GAIN increased participation in services above and beyond what welfare recipients would have received in the absence of the program. This analysis consists of a comparison of experimental and control group members on several participation measures. If no differences were observed between these two groups, there would be no reason to expect this component to contribute to GAIN's impacts on education or economic outcomes. Chapter 5 analyzes the GAIN program's impacts on educational attainment and educational achievement.

---

[15] If inadequate amounts of education were provided for programmatic reasons, that would suggest that the GAIN model was not given a fair test. However, if registrants resisted attending and did not participate for adequate periods even when the services were available, that would indicate that a fair test was provided but the model did not produce the intended results.

[16] It is beyond the scope of the GAIN evaluation to address the effect of the program on the well-being of recipients' children. This issue will be studied directly in the national JOBS evaluation.

CHAPTER 2

RESEARCH DESIGN, DATA SOURCES, AND SAMPLE CHARACTERISTICS

This report focuses exclusively on one group of welfare recipients from the overall GAIN evaluation: those determined to need basic education. The GAIN evaluation's analysis of welfare and employment impacts to date is based on a research sample of approximately 33,000 individuals, from the six research counties, who were randomly assigned to the experimental or control group. Of this number, roughly 21,000 were determined to need basic education. To collect information on participation in basic education and receipt of a GED or a high school diploma, MDRC surveyed a subset of approximately 2,500 of these 21,000 welfare recipients in five of the six counties (all but Butte) two to three years after random assignment. To measure educational achievement, a literacy test was administered at the time of the survey to about 1,100 of these 2,500 individuals.

This chapter describes the research design for the GAIN evaluation as a whole and this report specifically. Sections I and II describe the counties included in the GAIN evaluation and the random assignment process that was implemented in them. Section III discusses data sources and the strategy that guided data collection. The final section, Section IV, describes the background characteristics of members of the study sample.

I. The Research Counties in the GAIN Evaluation[1]

The six counties in the study of GAIN's impacts represent diverse geographical regions of the state, vary widely in local economic conditions and population characteristics, and constitute a mix of urban and rural areas. (See Figure 2.1 and Table 2.1.) They include three large, mostly urban, southern counties (Los Angeles, Riverside, and San Diego); one county in the Central Valley, a rural region dominated by agriculture (Tulare); a moderate-sized county in the San Francisco Bay Area (Alameda, which includes the City of Oakland); and one small northern county (Butte). Two of the counties (Alameda and Los Angeles) include large inner-city neighborhoods, and most are home to sizable populations of recent Asian and Hispanic immigrants and refugees. As described below, because resources for survey and test administration were limited, Butte was not included in the registrant survey or literacy testing.

---

[1] The material in this section is drawn from Friedlander, Riccio, and Freedman, 1993.

FIGURE 2.1

MAP OF CALIFORNIA SHOWING THE SIX COUNTIES PARTICIPATING IN THE GAIN IMPACT RESEARCH

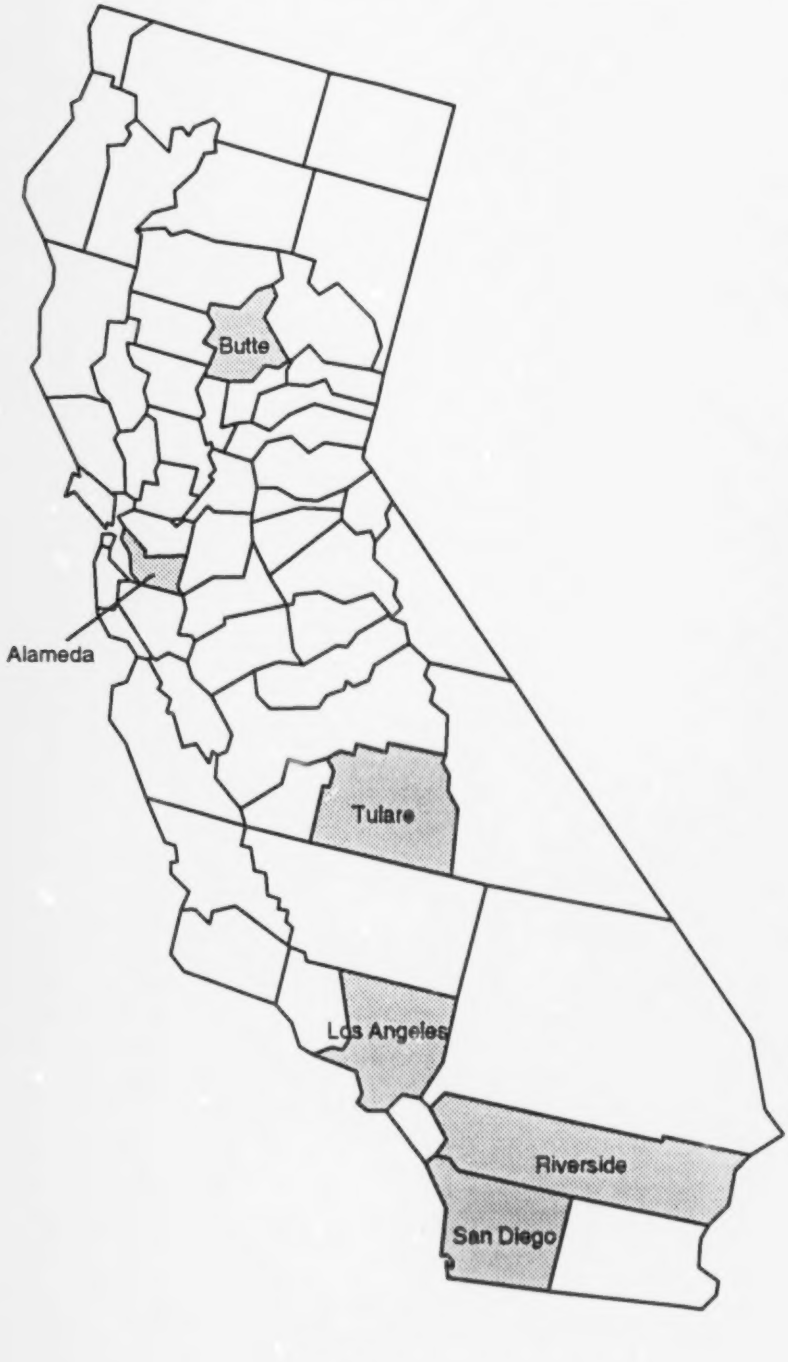

Butte
Alameda
Tulare
Los Angeles
Riverside
San Diego

TABLE 2.1

SELECTED CHARACTERISTICS OF THE GAIN RESEARCH COUNTIES

Characteristic	Alameda	Butte	Los Angeles	Riverside	San Diego	Tulare
Date began operating GAIN program	9/88	1/87	10/88	9/87	10/87	7/88
Period of random assignment	7/89-5/90	3/88-3/90	7/89-3/90	8/88-3/90	8/88-9/89	1/89-6/90
Unemployment rate (%)						
July 1988-June 1989	4.4	8.0	4.6	6.7	4.1	10.3
July 1989-June 1990	3.9	7.4	5.2	6.7	3.9	11.1
July 1990-June 1991	4.8	8.8	6.8	9.8	5.6	15.5
July 1991-June 1992	5.7	10.2	8.8	11.3	6.5	15.9
Average annual change in number of county residents employed, from July of county's first year of random assignment to July 1992 (%)	-0.1	2.2	0.8	3.0	1.2	-1.4
Population living in rural areas, 1990 (%)	0.3	14.8	0.9	14.4	4.4	32.7
Employed in agriculture, 1990 (%)	1.0	6.1	1.3	4.4	2.4	18.7
Number of welfare cases, December 1990 (a)						
AFDC-FG	27,245	4,432	208,016	21,823	45,123	11,497
AFDC-U	3,060	1,231	23,340	2,177	5,835	3,176
Proportion of California AFDC caseload in county (AFDC-FG and AFDC-U combined), December 1990 (b) (%)	4.4	0.8	33.7	3.5	7.4	2.1
Number of GAIN registrants, December 1990 (c)						
AFDC-FG (mandatory)	1,595	n/a (d)	13,817	5,886	15,982	3,451
AFDC-U (mandatory)	251	n/a (d)	3,899	2,489	6,426	1,925
Exempt volunteers (AFDC-FG and AFDC-U)	685	n/a (d)	7	354	1,989	249
Total	2,531	n/a (d)	17,723	8,729	24,397	5,625

(continued)

TABLE 2.1 (continued)

Characteristic	Alameda	Butte	Los Angeles	Riverside	San Diego	Tulare
Proportion of California GAIN caseload in county (AFDC-FG and AFDC-U combined), December 1990 (e) (%)	1.4	n/a (d)	9.7	4.8	13.3	3.1
Proportion of welfare cases registered for GAIN, December 1990 (AFDC-FG and AFDC-U combined) (%)	8.4	n/a (d)	7.7	36.4	47.9	38.3
Number of GAIN offices in evaluation	1	1	5	4	8	5
GAIN mandatory caseload members targeted for registration	Long-term recipients only (f)	Cross section	Long-term recipients only (f)	Cross section	Cross section	Cross section

SOURCES: California Employment Development Department (unemployment rates and percentages employed in agriculture); U.S. Bureau of the Census, 1990 (percentages in rural areas); California Health and Welfare Agency (welfare and GAIN data).

NOTES: (a) A "welfare case" is defined as a single-parent (AFDC-FG) or two-parent (AFDC-U) household that received an AFDC payment during December 1990 and remained eligible to receive AFDC at the end of the month.

(b) The statewide AFDC caseload at the end of December 1990 was 686,792.

(c) GAIN registrants include AFDC applicants and recipients who registered for GAIN at a county Income Maintenance office and were still eligible for GAIN services at the end of December 1990. In San Diego County, the number of AFDC-U GAIN registrants exceeded the number of AFDC-U cases. Several factors could account for this discrepancy: registration of the second parent in the household; more AFDC applicants than recipients among those newly registered for GAIN; or delays in the deregistration of GAIN registrants who had recently left AFDC.

(d) These data were not available for Butte County.

(e) The statewide GAIN caseload at the end of December 1990 was 183,127.

(f) In Alameda, the long-term recipients served in GAIN had been continuously receiving AFDC for more than two years. In Los Angeles, the long-term recipients served had been continuously receiving AFDC for three years or more.

Partly reflecting differences in their geography, GAIN funding levels, and the degree of dispersio of their welfare populations, two of the counties (Alameda and Butte) operated their GAIN programs ou of a single location, while the others established several local GAIN offices (San Diego, with eight, had the most). The total GAIN caseload ranged from 2,531 in Alameda to 24,397 in San Diego at the end of December 1990 (which was six months following the completion of sample intake for the GAIN evaluation).[2]

Although the GAIN participants in these six counties were not strictly representative (in a pure statistical sense) of GAIN registrants in California as a whole, together they accounted for about one-third of the state's entire GAIN caseload in December 1990. (Over half of the entire state AFDC caseload lived in these counties, with 34 percent of all cases having been located in Los Angeles alone.) Thus, while the results of the evaluation are not generalizable to the state as a whole, they do provide a test of GAIN as implemented under a wide range of conditions found across California.

All of the research counties began operating their GAIN program between January 1987 (Butte) and October 1988 (Los Angeles). (See Table 2.1.) During the period when the research sample was being collected (i.e., the "period of random assignment," which will be explained in Section II), Butte, Riverside, San Diego, and Tulare had the resources to operate a "universal" program, i.e., they registered all welfare applicants and recipients whose participation in GAIN was mandatory. (As noted in Chapter 1, others who were exempt from the participation requirement were allowed to volunteer.) In contrast, Los Angeles and, in almost all cases, Alameda registered only long-term welfare recipients, in accordance with GAIN regulations, which require counties to give priority to those on aid for two or more years when funding constraints do not permit all eligible persons to be served. Los Angeles registered only welfare recipients who had received AFDC for at least three consecutive years. However, except for those who met the official exemption criteria, *all* recipients in this category were referred to GAIN. Alameda began by registering individuals who had been receiving AFDC since 1980, but subsequently registered more recent welfare recipients.[3]

---

[2] The average *statewide* GAIN caseload in July 1990-June 1991 was 178,676 cases per month. As a result of decreased funding, this average fell to 164,253 cases per month in July 1991-June 1992. In December 1990, approximately 27 percent of all AFDC cases statewide were registered for GAIN. By December 1992, this number had declined to approximately 18 percent (14 percent of all AFDC-FG cases and 35 percent of all AFDC-U cases). Funding for GAIN (not counting "community resources" such as the substantial amount of JTPA and California State Department of Education monies earmarked for serving GAIN students but not controlled by CDSS) was $215.5 million in state fiscal year 1990-1991. It fell to $192 million in 1991-1992, and was then increased to $212.5 million in 1992-1993.

[3] Prior to the start of the evaluation, Alameda gave priority to long-term recipients, within both the GAIN-exempt and non-exempt groups, who *volunteered* for the program.

As will become apparent, the different intake policies across the counties, along with differences in the general makeup of each county's local population, yielded research samples that varied markedly in their demographic composition. This is an important fact, which must be kept in mind when comparing the effects of GAIN across the six counties.

Table 2.1 presents trends in unemployment rates in each county during the period of random assignment as well as through the end of the two- to three-year follow-up period for this report.[4] Overall, unemployment rates were generally increasing toward the end of this study period, a pattern influenced by the state and national economic recession. Nonetheless, Tulare consistently had the highest unemployment rates, with a monthly average of over 11 percent between July 1989 and June 1990 and an average of about 16 percent in the following two years. (A severe freeze in 1991, which destroyed much of the crop in that largely rural and agricultural area, contributed to this rise in unemployment rates.) Economic conditions also varied considerably across the other counties. Alameda and San Diego consistently had the lowest unemployment rates.

A somewhat different picture of local economic conditions emerges when an alternative measure – the annual rate of change in the number of county residents employed – is considered. (See Table 2.1.) Over the course of the random assignment and follow-up period, Riverside stands out as having had a higher growth rate than any of the other counties, especially early on, with an average increase of 3 percent per year. This measure may be indicative of better opportunities for finding jobs. Butte followed, with a growth rate of 2.2 percent per year, and San Diego had a rate of 1.2 percent per year. Los Angeles experienced very little growth in the number of employed residents, while the rate was slightly negative for Alameda, and even more negative for Tulare. Although the county variation on this measure does not correspond well with the pattern of unemployment rates, the two measures together illustrate the more general point that the counties faced quite different local circumstances in operating their GAIN program, which must be taken into account when comparing county impacts.

II. An Overview of the Research Design for the GAIN Evaluation

To test the effectiveness of GAIN in increasing welfare recipients' employment and earnings and reducing their use of AFDC, a random assignment research design was instituted in each of the six counties. In addition, to determine the fuller set of impacts for the group determined to need basic education, the evaluation included this study of education impacts. All individuals who, during the period of sample intake, were designated at the Income Maintenance office as mandatory registrants for GAIN *and* attended a program orientation and appraisal at the GAIN office were randomly assigned to either an experimental group, which was eligible to receive GAIN services and subject to the participation mandate, or to a control group, whose members were not eligible for those services – including GAIN's child care services – and not subject to the mandate. (See Figure 2.2.) The members of the control group could, however, seek alternative services in the community on their own initiative. Later, both groups – which together make up the research sample for the study of GAIN's impacts – were followed up. The differences in their employment, earnings, and welfare receipt (and, for a representative subsample of the "in need of basic education" group, education-related outcomes) represent the measured impacts – or effects – of GAIN.

---

[4] The employment statistics presented in Table 2.1 were obtained through June 1992, which covers the two- to three-year follow-up period for most sample members.

In some other studies of welfare-to-work programs, random assignment has taken place when people came into the Income Maintenance office, rather than later, at program orientation, as it did in the GAIN evaluation. Under the former type of design, the impact sample includes individuals who never show up at a program orientation as well as those who do show up, and thus fully represents the caseload of individuals referred to the program. When random assignment is placed later, at orientation, registrants who do not show up for the program – a potentially sizable group[6] – are not part of the research sample. Thus, the results cannot be directly generalized to the entire caseload of registrants referred from the Income Maintenance office. This issue is important when comparing the results of the GAIN evaluation with those of other studies.

Table 2.1 shows that the random assignment period for the GAIN impact study started and ended at different times in each of the six counties. (Random assignment concluded when the number of people required for the research had been enrolled in the sample.) Butte, the smallest of the six counties, conducted random assignment for about two years, from March 1988 to March 1990. The process was shorter in the other counties, ending everywhere no later than June 1990. Overall, about 55 percent of the research sample were registered prior to July 1989, the date of GAIN's transition to JOBS. Random

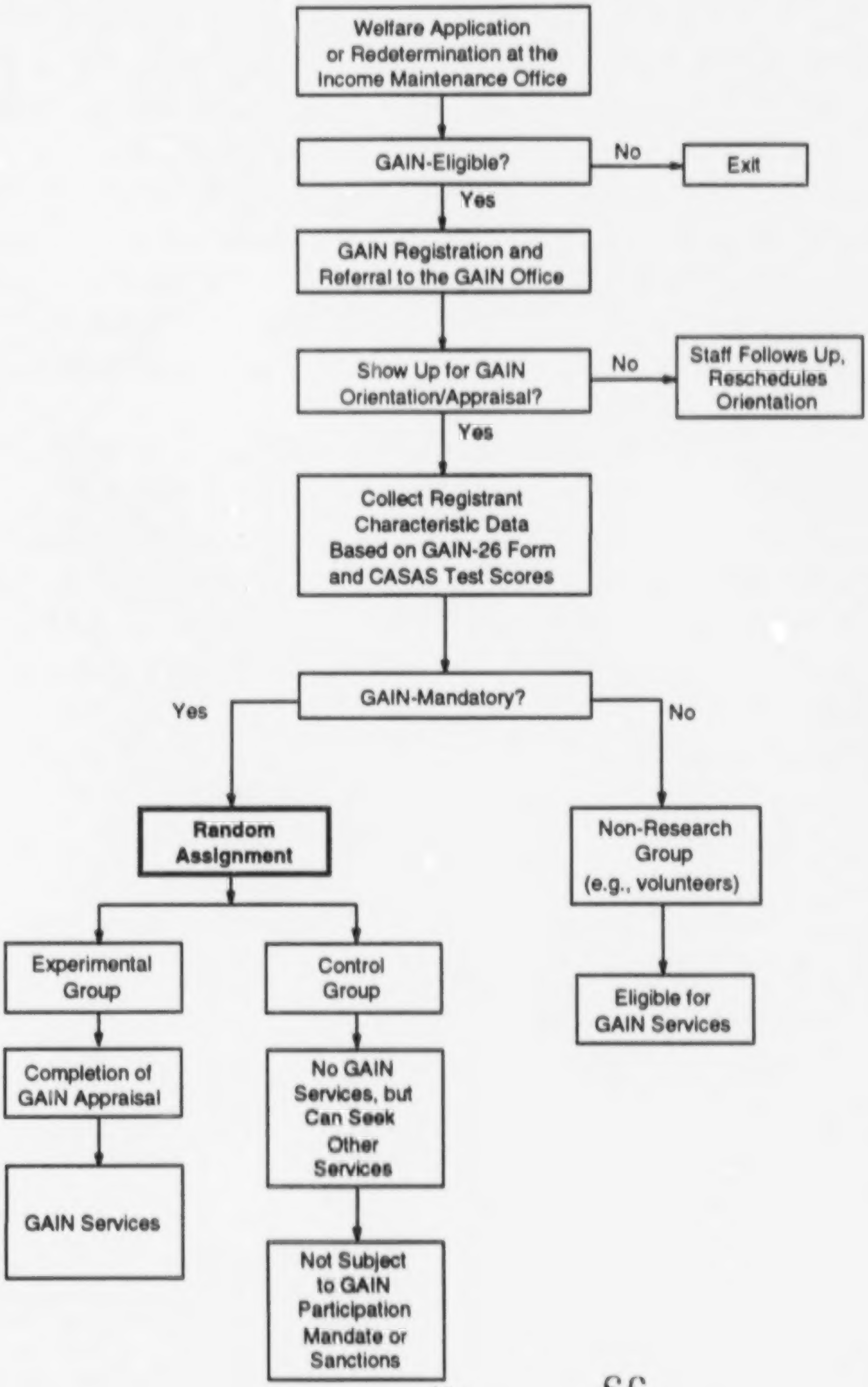
---

[5] As noted above, the mandatory population was broadened under JOBS, but only the groups considered mandatory for GAIN under the pre-JOBS rules – i.e., single parents whose youngest child was age six or older and the heads of two-parent families – are included in the analyses for this report.

[6] Although the orientation "no-show" rate was not measured in the six counties discussed in this report, it was measured in seven of the eight counties included in MDRC's 1989 implementation report (Riccio et al., 1989, Chapter 4). In that sample, nearly one-third of all mandatory registrants did not show up for an orientation and appraisal within six months of their scheduled orientation. By the end of the six-month follow-up period, roughly two-thirds of those who did not attend an orientation had either left welfare or were officially excused from participating in the program.

FIGURE 2.2

OVERVIEW OF THE INTAKE AND RANDOM ASSIGNMENT PROCESS FOR THE GAIN EVALUATION


Welfare Application or Redetermination at the Income Maintenance Office
GAIN-Eligible?
No
Exit
Yes
GAIN Registration and Referral to the GAIN Office
Show Up for GAIN Orientation/Appraisal?
No
Staff Follows Up, Reschedules Orientation
Yes
Collect Registrant Characteristic Data Based on GAIN-26 Form and CASAS Test Scores
GAIN-Mandatory?
Yes
No
Random Assignment
Non-Research Group (e.g., volunteers)
Experimental Group
Control Group
Eligible for GAIN Services
Completion of GAIN Appraisal
No GAIN Services, but Can Seek Other Services
GAIN Services
Not Subject to GAIN Participation Mandate or Sanctions

assignment began in each county sometime between 7 and 14 months after the county began operating GAIN.

III. Data Sources and Research Samples for This Report

This report analyzes GAIN's effects on GAIN-mandatory registrants, both single parents with school-age children (mostly mothers), referred to as AFDC-FG registrants, and the unemployed heads of two-parent families (mostly fathers), referred to as AFDC-U registrants.[7] As discussed in Chapter 1, and unlike the previous MDRC reports on GAIN, this report is concerned exclusively with AFDC-FG and AFDC-U registrants who were determined to need basic education.

This section of the chapter discusses the data sources used in this analysis, the groups of registrants for whom each type of data was collected, and the time period covered by each data source.

A. Data Sources

As described in Chapter 1, this report addresses a wide variety of topics, including the operation of basic education programs for GAIN registrants, the amount of education received by GAIN basic education participants, and GAIN's impact on participation, educational attainment, and educational achievement. A range of data sources was required to address these diverse topics. The major sources are discussed briefly below:

- **Baseline data.** The state's client information form (or "GAIN-26") was used to collect demographic and identifying information about experimentals and controls when they first entered the research sample. A few special categories were added to this form for research purposes. The CASAS reading and mathematics tests were also administered to most sample members (except those who were not proficient in English). The GAIN regulations required that these tests be administered as part of the program's intake process. The GAIN-26 and CASAS test data are used to describe the research sample, identify important subgroups, increase the precision of impact estimates, and analyze selection bias when subsamples are used.

- **AFDC and UI records data**. Data on welfare payments and welfare receipt were obtained on all experimentals and controls from each county's computerized welfare payments records. Employment and earnings data came from the computerized California State Unemployment Insurance (UI) Earnings and

---

[7] The total research sample also includes individuals who were newly mandatory for GAIN under the JOBS legislation (i.e., they had a child under the age of six). Although not included in the present analysis, GAIN's effects on that group will be examined in the evaluation's final report.

Benefits Records. These data were used to analyze GAIN's impacts on welfare receipt and employment, which are discussed only briefly in this report.[8]

- **Registrant survey data**. A survey was administered to a subset of experimentals and controls, either by phone or in-person two to three years after random assignment. Most registrants who completed the survey received a $25 payment. The survey examined registrants' self-reported participation in a range of activities and receipt of a GED or a high school diploma (other outcomes were also measured but are not discussed in this report).

- **Literacy test (TALS) data**. In conjunction with the registrant survey, two parts of a literacy test were administered to a subset of experimentals and controls approximately two to three years after random assignment. Usually, the literacy test was administered in the registrant's home and during the same visit in which the survey was administered. Those who completed the survey and literacy test received a $35 payment. The test consisted of the document literacy and quantitative literacy parts of the Test of Applied Literacy Skills (TALS), developed by the Educational Testing Service (ETS). Further information on the content and properties of this test is given in Chapter 5.

- **GAIN program tracking data**. So that the experimental group's patterns of participation in GAIN activities could be analyzed, participation data were collected manually from program casefiles or from computerized tracking systems.

- **Attendance data**. To analyze hours of attendance and completion patterns of experimentals who participated in a basic education program, MDRC staff manually reviewed the attendance records of education providers in three counties. In a fourth county, San Diego, a computerized attendance system was used to obtain these data.

- **Staff Activities and Attitudes Survey**. To describe the ways in which the counties implemented the GAIN model, the study draws on responses to the MDRC Staff Activities and Attitudes Survey. This survey was administered to GAIN staff twice in each county (one and two years after GAIN began) – during or slightly after the random assignment period in each county.[9]

- **Field research**. To describe the operation of GAIN basic education programs, MDRC conducted in-person interviews with administrators and teachers from selected schools in each county, primarily during the random assignment period. In addition, MDRC staff conducted a series of in-depth, in-person interviews with program case managers and administrators.

---

[8] See Friedlander, Riccio, and Freedman, 1993, for a detailed presentation of these impacts over a two-year period.

[9] It was also administered approximately six months before GAIN began operations, but these survey data are not used in this report.

B. Subsamples and Follow-up Periods

Of the data sources described above, the baseline data, AFDC, and UI records were available for the entire research sample who were determined to need basic education. All other types of data were obtained for subsets of this sample. Table 2.2 and Figure 2.3 describe the subsample for which each type of data was obtained and describe how these subsamples were selected. Appendix Figure B.1 illustrates, for each county, the time period covered by random assignment and by each data source used in the study. Each of the major data sources, and the sample to which it applied, is discussed below.

1. **AFDC and UI records data.** This report briefly discusses GAIN's two-year impacts on employment, earnings, and welfare receipt for the full research sample of AFDC-FG and AFDC-U experimentals and controls (i.e., all those who were randomly assigned in each county).[10] More than 21,000 experimentals and controls – approximately 67 percent of whom were AFDC-FGs and 33 percent of whom were AFDC-Us – were determined to need basic education. (Of these, about 23 percent of the AFDC-FGs and 32 percent of the AFDC-Us were randomly assigned to the control group, with the actual proportions varying across the counties and over time in some counties.)

Impacts are also briefly presented for an "early cohort," in each county, of AFDC-FGs and AFDC-Us who were judged to need basic education.[11] These registrants were randomly assigned early during the period of sample intake, so a third year of follow-up data are available for them. However, the three-year impacts for a county's early cohort may not reflect those for its full research sample if its early and later registrants differed in their background characteristics, the labor market conditions they faced, the way GAIN was operated when they were in the program, and other factors. Therefore, the three-year findings included in this report should be interpreted cautiously. MDRC's final evaluation report, scheduled for 1994, will present impacts covering a minimum of three years for the full sample in each county, and longer for the early cohort.

2. **Registrant survey data**. As Table 2.2 and Figure 2.3 illustrate, survey data were collected for a subsample of GAIN registrants. The survey sample is a stratified random sample drawn from all experimentals and controls in five of the six research counties. (Because resources for survey and test administration were limited, the survey was conducted in the five largest counties and Butte was not included).[12] Registrants who were not proficient in English, Spanish, or Vietnamese were not included

---

[10] As noted above, these two-year impacts are presented in detail in Friedlander, Riccio, and Freedman, 1993.

[11] Ibid.

[12] The sample was stratified based on applicant/recipient status, prior employment history, prior welfare history, and, finally, a random number. This was done in order to produce a random sample that would be representative (continued...)

TABLE 2.2

DATA SOURCES AND RESEARCH SAMPLES FOR THE GAIN STUDY OF THOSE DETERMINED TO NEED BASIC EDUCATION

Data Source	Counties in Which Data Were Collected	Sample for Whom Data Were Collected	Sample Size			Period Covered by Data
GAIN-26 form (registrant baseline characteristics) and CASAS reading and math tests[a]	All research counties	All experimental and control group members	AFDC-FGs	14,436		Data reported at GAIN orientation
			Experimentals	11,094		
			Controls	3,342		
			AFDC-Us	7,160		
			Experimentals	4,842		
			Controls	2,318		
			Total	21,596		
AFDC and UI records	All research counties	All experimental and control group members (except AFDC-U registrants in Alameda)	AFDC-FGs	14,306		2-3 years after GAIN orientation
			Experimentals	10,985		
			Controls	3,321		
			AFDC-Us	7,086		
			Experimentals	4,783		
			Controls	2,303		
			Total	21,392		
GAIN registrant survey	Alameda, Los Angeles, Riverside, San Diego, Tulare (Butte not included)	Stratified random sample selected from experimental and control groups in each county		Sample	Respondents	2-3 years after GAIN orientation
			AFDC-FGs	2,808	2,258	
			Experimentals	1,525	1,207	
			Controls	1,283	1,051	
			AFDC-Us	402	293	
			Experimentals	200	146	
			Controls	202	147	
			Total	3,210	2,551	

(continued)

TABLE 2.2 (continued)

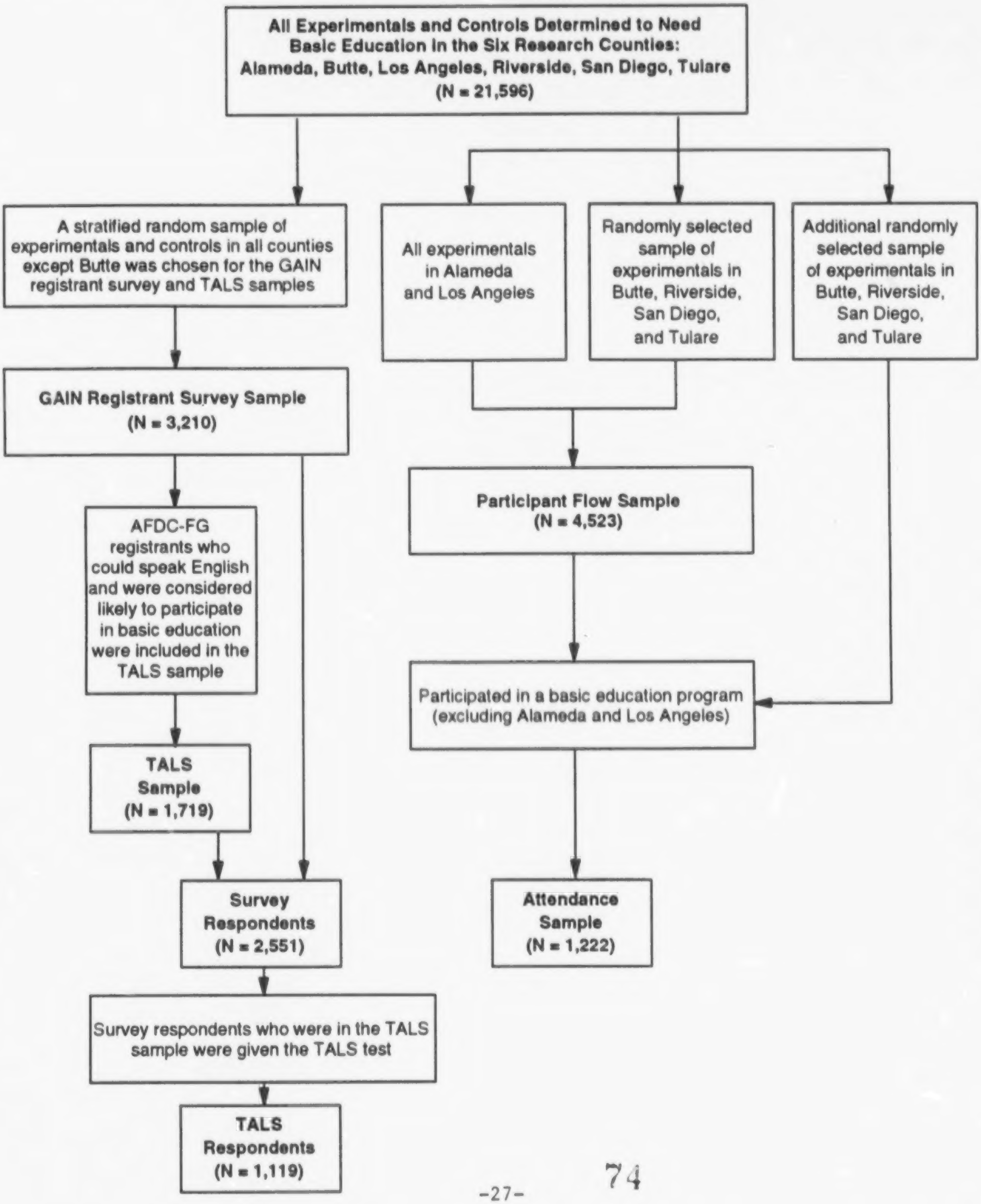
Data Source	Counties in Which Data Were Collected	Sample for Whom Data Were Collected	Sample Size			Period Covered by Data
				Sample	Respondents	
TALS document and quantitative literacy tests	Alameda, Los Angeles, Riverside, San Diego, Tulare (Butte not included)	All AFDC-FG experimentals and controls in the survey sample except those who were non-English speakers and (in Alameda, Los Angeles, and Tulare) those who were determined unlikely to participate in basic education because they: 1. had a high school diploma or GED; 2. were working 15 hours or more per week; or 3. were already enrolled in school or training at GAIN orientation	AFDC-FGs Experimentals Controls	1,719 930 789	1,119[b] 597 522	2-3 years after GAIN orientation
GAIN program tracking records[b]	All research counties	Randomly selected sample of experimentals in Butte, Riverside, San Diego, and Tulare; all experimentals in Alameda and Los Angeles	AFDC-FGs AFDC-Us Total	3,381 1,142 4,523		11 months after GAIN orientation
Provider attendance records	Butte, Riverside, San Diego, Tulare (Alameda and Los Angeles not included)	Randomly selected sample of experimentals in each county who attended a basic education program	AFDC-FGs AFDC-Us Total	961 261 1,222		12 months after GAIN orientation

NOTES: [a] Throughout this report, these date sources are referred to as GAIN intake forms.

[b] Four of these observations were not available for the TALS impact analysis because they lacked key identifying information.

FIGURE 2.3

RESEARCH SAMPLES FOR THE GAIN STUDY OF THOSE DETERMINED TO NEED BASIC EDUCATION


All Experimentals and Controls Determined to Need Basic Education in the Six Research Counties: Alameda, Butte, Los Angeles, Riverside, San Diego, Tulare (N = 21,596)
A stratified random sample of experimentals and controls in all counties except Butte was chosen for the GAIN registrant survey and TALS samples
All experimentals in Alameda and Los Angeles
Randomly selected sample of experimentals in Butte, Riverside, San Diego, and Tulare
Additional randomly selected sample of experimentals in Butte, Riverside, San Diego, and Tulare
GAIN Registrant Survey Sample (N = 3,210)
Participant Flow Sample (N = 4,523)
AFDC-FG registrants who could speak English and were considered likely to participate in basic education were included in the TALS sample
Participated in a basic education program (excluding Alameda and Los Angeles)
TALS Sample (N = 1,719)
Survey Respondents (N = 2,551)
Attendance Sample (N = 1,222)
Survey respondents who were in the TALS sample were given the TALS test
TALS Respondents (N = 1,119)

in the survey sample. As illustrated in Appendix Figure B.1, the survey sample was drawn from a specified time period in each county, which did not cover the entire random assignment period. The survey sample consists of 11 percent of the experimental group members and 26 percent of the control group members and was selected to yield an equal number of experimentals and controls in each county except Riverside. Riverside had two experimental groups; an equal number of sample members from each of them, and from the control group, were selected.[13] Thus, unlike the survey samples in the other counties, the Riverside survey sample is composed of two-thirds experimentals and one-third controls. The survey sample for the group determined to need basic education included 3,210 registrants in all (2,808 AFDC-FGs and 402 AFDC-Us).

The survey subcontractor was able to locate and administer the survey to 2,551 of these registrants (2,258 AFDC-FGs and 293 AFDC-Us), for an overall response rate of almost 80 percent.[14] There were few significant differences in the characteristics of responders and nonresponders; there was also a close match between the characteristics of experimentals and controls. Appendix A provides more details on response rates and response bias.

The survey encompassed registrants' experiences during the period from random assignment until the survey administration date. In three counties – Riverside, San Diego, and Tulare – the survey occurred roughly two years after random assignment. Survey administration occurred later in Alameda (averaging 30 months after random assignment) and Los Angeles (averaging 37 months after random assignment). The findings are generally not sensitive to the different follow-up periods. (Chapters 3 and 4 discuss analysis issues related to the longer follow-up periods in some counties.)

3. Literacy test (TALS) data. The sample included in the TALS test analysis was a subset of the survey sample described above. The TALS sample included all AFDC-FG experimentals and controls from the survey sample who were determined to need basic education except those who met specified criteria. Non-English readers (i.e., those who had not taken the CASAS tests at the time of random assignment because they were not proficient in English) were not included in the TALS sample because the TALS was not appropriate for them.

---

[12](...continued)
of the whole group in terms of these key characteristics. The final sort by a random number ensures that individual sample members were chosen at random.

[13] Riverside had two experimental groups because of a special study in that county of the effects of higher versus lower registrant-to-case-manager ratios. However, the two experimental groups have been combined for the present study.

[14] MDRC contracted with NSI Research Group to conduct the survey.

In addition, individuals who were judged to need basic education but did not participate in this activity were not expected to obtain TALS score impacts. Therefore, sample members who were considered less likely to participate in basic education were not included in the TALS sample. This criterion was used only for the selection of later cohorts of the TALS sample in Alameda, Los Angeles, and Tulare.[15] Three groups of registrants were considered less likely to participate in basic education and were not included in the TALS sample: (1) those who had a high school diploma or a GED at the time of random assignment, (2) those who were working more than 15 hours per week at the time of random assignment, and (3) those who were enrolled in a school or training program at the time of random assignment.[16] Survey sample members who met any of these criteria were not included in the TALS sample. The TALS sample is therefore less representative of the overall impact sample than is the survey sample as a whole. However, the character of the TALS sample makes it possible to capture more accurately the TALS score impacts associated with participation in basic education activities, particularly ABE and GED activities.

Overall, 61 percent of AFDC-FG experimentals and controls in the survey sample were included in the TALS sample. The TALS sample included 1,875 registrants in all. However, two factors reduced the size of the sample. First, completed tests for 108 sample members from Riverside, San Diego, and Tulare were not received because of a shipping error. Second, owing to problems in administering the test, 48 cases from Alameda were determined, during the validation process, to be invalid. These cases were dropped from the TALS sample, reducing its size to 1,719 registrants. TALS test scores are available for 1,119 of these registrants, for an overall response rate of 65 percent.[17]

There were few significant differences in background characteristics of those in the TALS sample who completed the TALS test and those who did not. Also, there was a close match in the characteristics of experimentals and controls. The loss of 156 sample members did not introduce any significant bias into the TALS sample.

4. GAIN program tracking data. The sample for whom GAIN program tracking data were collected is referred to as the "participant flow sample" throughout this report. In four counties (Butte,

---

[15] The proportion of the TALS sample that was selected using this criterion was 56 percent in Alameda, 40 percent in Los Angeles, and 38 percent in Tulare. Across all five counties, 46 percent of the TALS sample were selected on the basis of their being likely to participate in basic education.

[16] These individuals, most of whom were enrolled in vocational training or post-secondary programs, could continue in their self-initiated program (if approved by GAIN staff) to fulfill the GAIN participation requirement. This group was considered unlikely to be referred to or to participate in a basic education program.

[17] Scores for four respondents were not available for the TALS impact analysis because key identifying information about these individuals was missing.

Riverside, San Diego, and Tulare), data on GAIN program activity were collected manually from GAIN casefiles. The participant flow sample in these counties was a randomly selected, stratified sample chosen from the experimental group. As illustrated in Appendix Figure B.1, in these four counties, the participant flow sample did not cover the entire random assignment period. In general, it was drawn from an earlier cohort than was the survey sample. MDRC collected 11 months of program participation information on all members of the participant flow sample. In Alameda and Los Angeles, participant flow data were collected from computerized tracking systems, making it possible to include in the participant flow sample for those counties all experimentals from the entire random assignment period. In total, the participant flow sample in the six counties, for those determined to need basic education, consisted of 3,381 AFDC-FG registrants and 1,142 AFDC-U registrants.

5. Attendance data. MDRC collected 12 months' worth of information about hourly attendance in and completion of basic education activities for a subsample of experimentals in four counties (Butte, Riverside, San Diego, and Tulare). In three of these counties (Butte, Riverside, and Tulare), these data were collected manually from providers' records. Providers' records for almost all of the schools serving GAIN registrants in each county were reviewed; only a few schools were not included in the analysis, because they either served very few GAIN registrants or had poor-quality data. (See Appendix Table B.1 for the schools in each county included in the data collection effort.)

The attendance sample consisted of two groups. First, all those in the participant flow sample who attended a basic education program were included. Second, in order to increase sample sizes, an additional subsample of AFDC-FG experimentals who were determined to need basic education and who were from the same cohort as the participant flow sample were randomly selected from each county. MDRC reviewed records at each basic education provider to determine whether these additional sample members had attended. If they had, they were included in the attendance sample.

In San Diego, a computerized attendance file was used, allowing MDRC to obtain data for all AFDC-FG and AFDC-U experimentals who participated in a basic education program. However, only experimentals from the same random assignment period as the participant flow sample were included in the analysis. In two schools in San Diego, the automated data were of poor quality. Thus, the attendance data for a subsample of experimentals at these schools were collected manually. Because of the automated system, attendance data were available for a much larger subsample in San Diego than in the other counties (662 AFDC-FG registrants and 191 AFDC-U registrants).

Across all four counties, attendance data were obtained for 961 AFDC-FG and 261 AFDC-U sample members who participated in a basic education program. Attendance data were not collected in Alameda or Los Angeles.

IV. Background Characteristics of the Full Sample for This Report

Table 2.3 displays selected characteristics of the full sample[18] of AFDC-FGs who were judged to need basic education in each county (with the experimental and control groups combined). Table 2.4 presents the same information for the AFDC-U group.[19] Differences in the characteristics of the counties' research samples are important because they may have contributed to differences in registrants' participation patterns and program impacts and costs. In this report, the educational background of sample members is particularly important.

Table 2.3 reveals some striking contrasts in the background characteristics of the counties' research samples. For example, unlike samples in all of the other counties, those in Alameda and Los Angeles included virtually no individuals who, at the time of their referral to GAIN, were AFDC applicants or short-term recipients. This reflects the special intake policies in those two counties, which were noted above. Furthermore, in the AFDC-FG group in the other four counties, the proportion of long-term recipients (who had received welfare for more than two years) ranged from 32 percent in Butte to 61 percent in Tulare. Across the six counties, the proportion who had worked for pay during the two years prior to GAIN orientation ranged from 16 percent in Los Angeles to 53 percent in San Diego. The counties also varied widely in racial and ethnic composition. For example, 10 percent of Los Angeles's sample were non-Hispanic whites, compared to 80 percent of Butte's. Four counties (Los Angeles, Riverside, San Diego, and Tulare) had substantial Hispanic populations (roughly one-third of the sample).

As discussed in Chapter 1, GAIN registrants are determined to be in need of basic education if they do not have a high school diploma or a GED, score below 215 on either the reading or mathematics CASAS test, or are not proficient in English. Table 2.3 gives the reasons registrants were determined to need basic education across the six counties. An important distinction across the counties was the proportion of the research sample who had a high school diploma or a GED but were determined to need basic education because they scored below 215 on either of the two CASAS tests. This rate ranged from 38 percent in Alameda to 12 to 20 percent in the other counties. The remainder did not possess a high school diploma or a GED; in addition, more than half of these individuals in most counties scored below 215 on one or both CASAS tests. It is notable that 39 percent of the sample in Los Angeles were

---

[18] The full research sample of 21,596 registrants shown in Table 2.2 contains 204 cases that were not included in the impact sample because social security numbers and/or AFDC case numbers were missing, or for other reasons. These cases were not included in the impact analyses in this report, although they were included in the background information presented in this section.

[19] Characteristics of the survey and TALS samples are presented in Appendix Tables B.2 and B.3.

TABLE 2.3

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: SELECTED CHARACTERISTICS OF THE AFDC–FG RESEARCH SAMPLE AT GAIN ORIENTATION

Characteristic and Subgroup	Alameda	Butte	Los Angeles	Riverside	San Diego	Tulare
Aid status (a) (%)						
Applicant	0.0	55.7	0.0	30.0	25.8	14.0
Short–term recipient	0.0	12.7	0.0	28.5	29.1	25.1
Long–term recipient	100.0	31.6	100.0	41.5	45.1	60.9
Employed within past 2 years (%)	20.4	50.6	15.5	42.7	52.9	43.5
Ethnicity (%)						
White, non–Hispanic	13.3	80.0	9.6	41.2	29.6	44.2
Hispanic	9.0	8.3	36.5	36.0	34.3	45.6
Black, non–Hispanic	70.2	4.0	40.3	16.1	22.6	3.9
Indochinese	2.9	1.3	12.2	1.9	8.8	0.5
Other Asian	1.1	4.1	0.8	2.4	0.9	3.5
Other	1.8	2.3	0.4	2.4	3.6	2.3
Refugee (%)	4.7	18.4	13.2	3.7	8.0	5.1
Received high school diploma or GED (%)	41.0	13.3	18.8	20.7	23.2	15.0
Average highest grade completed (b)	10.5	10.0	8.9	9.7	9.3	9.1
Highest grade completed (%)						
11 or above	63.7	47.1	46.7	47.3	44.9	36.0
9 or 10	22.6	32.6	19.2	30.2	27.2	31.3
8 or below	13.1	19.0	34.1	21.4	27.0	29.9
Scores on CASAS reading test (%)						
225 or above	46.6	64.3	24.0	53.1	47.8	48.3
215–224	21.6	13.1	12.3	16.9	16.7	18.1
214 or below	22.1	7.8	11.3	11.9	14.2	13.2
No score (b)	9.8	14.9	52.4	18.1	21.3	20.4
Scores on CASAS math test (%)						
215 or above	16.0	39.3	8.2	30.9	25.6	27.5
214 or below	74.2	45.8	39.4	51.0	53.2	52.1
No score (b)	9.8	14.9	52.4	18.1	21.3	20.4

(continued)

TABLE 2.3 (continued)

Characteristic and Subgroup	Alameda	Butte	Los Angeles	Riverside	San Diego	Tulare
Scores on both CASAS tests (%)						
215 or above on both	14.6	37.9	7.8	29.5	24.5	26.3
215 or above on one	54.9	41.0	28.9	41.7	41.2	41.3
214 or below on both	20.7	6.3	10.9	10.6	13.1	12.0
No score (b)	9.8	14.9	52.4	18.1	21.3	20.4
Reasons for being determined to need basic education (%)						
High school diploma or GED received but scored 214 or below on CASAS reading or math test	37.8	11.9	15.3	19.4	19.9	13.4
No high school diploma or GED received and scored 214 or below on CASAS reading or math test	33.1	33.2	23.4	31.3	26.4	37.6
No high school diploma or GED received and scored 215 or above on both CASAS tests	14.6	36.5	7.5	28.8	22.9	24.9
Limited English proficiency (c)	6.7	11.2	39.4	16.3	28.0	20.3
No high school diploma or GED received, proficient in English, and CASAS test scores not available	3.0	6.9	14.2	3.7	2.5	3.3
In school or training (%)	11.6	13.2	5.7	9.9	14.6	8.1
Average age (years)	35.0	33.3	38.8	34.0	34.3	35.4
Average number of children	2.0	1.7	2.3	2.0	1.9	2.1
Research sample status (%)						
Experimental	49.9	80.8	68.0	81.5	86.2	71.2
Control	50.1	19.2	32.0	18.5	13.8	28.8
Sample size	788	605	3,572	3,395	4,611	1,465

SOURCE: MDRC calculations using data from GAIN intake forms.

NOTES: Sample characteristics were recorded on the intake form by GAIN staff at orientation and are based on answers from GAIN registrants. Distributions may not add to 100.0 percent because of rounding or because of information missing from some sample members' intake forms.

(a) Applicants are registrants who were applying for AFDC at the time of referral to GAIN orientation; they include reapplicants who may have had prior AFDC receipt. Short-term recipients had received AFDC for two years or less; long-term recipients had received AFDC for more than two years (the AFDC receipt may not have been continuous).

(b) Individuals did not have CASAS test scores primarily because they had limited English proficiency and could not complete the tests.

(c) This subgroup includes individuals with and without a high school diploma or GED.

TABLE 2.4

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: SELECTED CHARACTERISTICS OF THE AFDC-U RESEARCH SAMPLE AT GAIN ORIENTATION

Characteristic and Subgroup	Alameda	Butte	Los Angeles	Riverside	San Diego	Tulare
Aid status (a) (%)						
Applicant	0.0	73.8	0.0	41.6	28.0	20.1
Short-term recipient	0.0	12.5	0.0	36.2	34.3	40.3
Long-term recipient	100.0	13.7	100.0	22.2	37.7	39.6
Employed within past 2 years (%)	21.0	74.7	32.6	68.3	75.4	63.9
Ethnicity (%)						
White, non-Hispanic	10.8	66.7	8.2	33.3	24.1	28.9
Hispanic	8.8	8.8	23.4	38.1	32.8	45.3
Black, non-Hispanic	13.5	2.9	2.9	6.7	7.1	2.0
Indochinese	45.3	4.7	61.6	8.3	29.1	5.0
Other Asian	17.6	15.2	3.4	10.7	2.3	16.1
Other	2.0	1.7	0.3	2.9	3.4	2.7
Refugee (%)	63.5	22.5	65.1	16.3	25.6	21.0
Received high school diploma or GED (%)	17.9	10.7	10.2	15.3	19.8	9.9
Average highest grade completed	7.0	9.4	6.8	9.0	8.7	8.2
Highest grade completed (%)						
11 or above	25.7	49.1	20.9	45.1	39.9	32.8
9 or 10	13.5	24.4	12.9	23.4	20.4	24.3
8 or below	53.4	22.8	66.2	29.5	38.9	37.3
Scores on CASAS reading test (%)						
225 or above	12.8	47.9	3.3	37.6	29.9	33.6
215-224	8.8	15.6	2.2	14.8	15.4	13.7
214 or below	14.2	7.8	2.4	13.2	26.0	12.5
No score (b)	64.2	28.8	92.0	34.5	28.7	40.2
Scores on CASAS math test (%)						
215 or above	8.8	38.4	2.2	26.2	22.9	25.3
214 or below	27.0	32.8	5.8	39.3	48.4	34.6
No score (b)	64.2	28.8	92.0	34.5	28.7	40.2

(continued)

TABLE 2.4 (continued)

Characteristic and Subgroup	Alameda	Butte	Los Angeles	Riverside	San Diego	Tulare
Scores on both CASAS tests (%)						
215 or above on both	5.4	37.2	2.2	24.9	19.8	23.7
215 or above on one	19.6	27.4	3.4	28.8	28.6	25.3
214 or below on both	10.8	6.6	2.4	11.9	22.9	10.9
No score (b)	64.2	28.8	92.0	34.5	28.7	40.2
Reasons for being determined to need basic education (%)						
High school diploma or GED received but scored 214 or below on CASAS reading or math test	9.5	8.5	1.3	12.8	13.3	7.7
No high school diploma or GED received and scored 214 or below on CASAS reading or math test	13.5	22.5	3.6	23.6	19.4	25.1
No high school diploma or GED received and scored 215 or above on both CASAS tests	4.7	35.0	1.9	23.5	17.7	21.9
Limited English proficiency (c)	66.2	26.1	89.4	35.1	46.6	42.0
No high school diploma or GED received, proficient in English, and CASAS test scores not available	4.7	7.6	3.7	4.7	2.9	2.8
In school or training (%)	6.8	12.0	4.5	9.0	10.7	19.0
Average age (years)	41.2	29.7	42.3	32.5	34.5	32.8
Average number of children	3.1	2.5	3.3	2.7	2.7	2.8
Research sample status (%)						
Experimental	52.7	77.0	51.1	68.9	74.8	69.1
Control	47.3	23.0	48.9	31.1	25.2	30.9
Sample size	148	591	1,345	1,602	2,062	1,412

SOURCE AND NOTES: See Table 2.3.

determined to be in need of basic education because of limited English proficiency, compared to 7 to 28 percent in the other counties.

The differences in education levels across the counties is also indicated by the proportion who scored 215 or higher on both CASAS tests. This ranged from a low of 8 percent in Los Angeles to a high of 38 percent in Butte. Sample members fared better on the CASAS reading test than on the mathematics test. In all counties except Los Angeles, roughly two-thirds scored 215 or higher on the reading test, while a smaller proportion – ranging from 8 to 39 percent – achieved this score on the mathematics test. In Los Angeles, many individuals did not take the CASAS tests because of their limited proficiency in English.

In contrast to the AFDC-FG group, the AFDC-U sample members were less likely to be long-term welfare recipients (except in Alameda and Los Angeles), more likely to have been employed in the prior two years (except in Alameda), and more likely to have been determined to need basic education because of their more limited knowledge of English. AFDC-Us also included a higher proportion of heads of families who were refugees from Vietnam, Laos, Cambodia, and other countries. More than one-half of the AFDC-U samples in Alameda and Los Angeles were Indochinese or members of other Asian groups.

CHAPTER 3

PATHWAYS INTO AND OUT OF BASIC EDUCATION, AMOUNT OF PARTICIPATION, AND ATTENDANCE PATTERNS

This chapter describes the experiences in the GAIN program of registrants determined to need basic education. It focuses on GAIN's basic education activities because they were the key, although not the only, program element provided to these welfare recipients. This chapter begins by discussing the nature of the basic education services received by these registrants in the six research counties. It then describes the amount of basic education received through the GAIN program by examining what proportion of registrants participated in basic education services (as well as other types of services), how long and how intensively they attended the activities, to what extent they completed the activities, and how these factors varied by county.

The purpose of this analysis is to document the "treatment" those considered in need of basic education received when they enrolled in the GAIN program. Because this defines the nature of the "investment" made in basic education, it is important for interpreting the impacts presented in Chapter 5. This chapter discusses what happened to individuals who enrolled in GAIN, and thus reports on results for the experimental group only (i.e., not for the control group).

I. The Basic Education Programs in GAIN

As discussed in Chapter 1, basic education in GAIN consists of three types of instruction: GED preparation, Adult Basic Education (ABE), and English as a Second Language (ESL). Individuals enroll in one or another of these components depending on their skills levels. GED preparation programs are designed for students who are at education levels that permit them to study productively for the GED test. The GED examination is fairly academic in nature and consists of five tests of high school performance in the following areas: social studies, literature, science, mathematics, and essay-writing. ABE programs provide remedial reading and mathematics for individuals at lower levels of skills, generally below the eighth-grade level. ESL activities provide individuals who are not proficient in English with instruction in reading and speaking that language.

Implementing GAIN's basic education component required the development of a new service relationship between welfare agencies and education systems. Prior to GAIN, adult education systems had primarily served individuals who had volunteered for services and thus, for the most part, were ready to make the commitment to returning to school and had attempted to resolve any significant barriers to attending. Under GAIN, education providers are required to serve a new, mandatory, and relatively disadvantaged population on an ongoing basis until they finish the program's requirements or leave welfare. Most of those who are required to participate in basic education are school dropouts and have a history of negative experiences in school. They may lack the motivation, confidence, and school-relevant skills possessed by those who volunteer for services. Furthermore, all are parents, suggesting that there are competing demands on their time and attention.[1]

This section explores how the basic education services for GAIN students were put in place by the counties and the characteristics of the education programs. It also assesses whether an "opportunity to learn" was provided to GAIN students in these programs. "Opportunity to learn" is a term used by education analysts who have made efforts to assess the quality of education in various school programs.[2] Service quality in education has been difficult to define and measure, and little is known about the program characteristics that constitute high-quality education, particularly in adult education programs.[3] In addition, many argue that the components of quality education cannot be identified a priori, but rather should be measured in terms of education outcomes. Thus, in the absence of program characteristics that are known to be related to quality or to clear education outcome measures, determining whether an opportunity to learn is present is a means of assessing whether it is reasonable to expect that learning could take place. In this report, the judgment as to whether an opportunity to learn was provided was based on conventional standards: whether students had access to adequate curricula, instructional methods, teachers, and hours of instruction. The description of basic education programs presented below is provided with the goal of assessing whether an opportunity to learn was offered. The education outcomes resulting from the GAIN program are presented in Chapter 5.

Overall, as discussed in this section, the six research counties were successful in providing basic education services for this new group of students that provided an opportunity to learn. There were, however, some important differences in the structure and content of the services. MDRC observed that counties and schools followed one of two patterns in providing these services. In most counties and schools, the services were the standard, preexisting basic education programs offered by the adult education system in the community, with few changes having been made to their content. However, some counties and some schools within counties followed a different path. In these places, and in San Diego in particular, efforts were made to redesign the education services specifically to the needs of the

---

[1] For further discussion of these issues, see Riccio et al., 1989, and Pauly, Long, and Martinson, 1992.
[2] See, e.g., O'Day and Marshall, 1993.
[3] See Grubb et al., 1991.

GAIN population by developing alternative ways to teach and support students. Table 3.1 summarizes the characteristics of basic education services provided to GAIN registrants in each county. A fuller description is given below.

A. Organizing the Education Services

In order to provide basic education services for GAIN students, each county established a service network with basic education providers in the community. It is important to point out that the GAIN program was implemented in a state with a sizable adult education system already in place: California's system is the largest in the country, serving more than one-third of all adult basic education students in the United States, and accounting for 19 percent of total U.S. expenditures on adult education.[4] The state's large adult education infrastructure was an important element in the ability of the system to accommodate the influx of GAIN students.

As shown in Table 3.1, adult education schools were the most common providers of basic education, although a few counties also depended on community colleges and community-based organizations. The number of providers used in each county ranged from two schools in Butte to 47 schools in Los Angeles. GAIN registrants were most often assigned to the school closest to their home. The schools predominantly operated programs that were open entry/open exit (i.e., students could enter and leave programs throughout the school year).

In most counties, the primary outcomes of the linkage between the education and welfare systems were the establishment of referral processes to ensure GAIN registrants' being directed to available slots and the development of procedures for monitoring GAIN registrants' attendance and classroom performance (an issue discussed later in this chapter). For the most part, the GAIN programs were successful in accessing slots in existing basic education programs. This task was particularly challenging in Los Angeles, where the GAIN program was large and there were 47 schools. The program secured a sufficient number of slots, and a referral and monitoring system, by contracting with three intermediary agencies to coordinate the provision of basic education services.[5]

San Diego was the exception to this pattern. This county initiated a new and separate system for providing basic education to all GAIN registrants in the county who had been determined to need it. The GAIN program and several school districts collaborated to redesign basic education services specifically for GAIN students, based on the premise that the existing services offered by the adult education system

---

[4] See Development Associates, 1992, p. 85.

[5] The GAIN program contracted with the Los Angeles Unified School District, the Los Angeles Community College District, and the County Office of Education.

TABLE 3.1

SELECTED CHARACTERISTICS OF COUNTY BASIC EDUCATION PROGRAMS FOR GAIN REGISTRANTS

Characteristic	Alameda	Butte	Los Angeles	Riverside	San Diego	Tulare
Types of providers	Adult schools, community-based organizations	Adult school, community college	Adult schools, community college	Adult schools, community college	Adult schools, community college	Adult schools, community-based organization
Number of schools serving GAIN registrants	15	2	47	12	8	7
Scheduled hours per week	15	15	20-25	15-20 at most schools, 27 at one school, and 12 at another	27	15-20
Slot availability problems	No	No	No	No	Some	No
GAIN-only classes	Some	No	Some	No	All	Some
Funding source	ADA JTPA	ADA JTPA	ADA GAIN JTPA	ADA GAIN JTPA	ADA GAIN JTPA	ADA GAIN
Completion standards for ABE classes	Teacher discretion	Teacher discretion	CASAS test scores	TABE test scores	CASAS test scores	Teacher discretion
Special characteristics	None	None	Contracts with two school districts and County Office of Education to manage education services	Performance-based payments for education providers	Newly developed, county-wide basic education program designed exclusively for GAIN students; some case managers assigned exclusively to basic education students	Standardized attendance reporting for all schools in county; GAIN-funded counselors at schools

SOURCE: MDRC field research.

were not appropriate. One welfare administrator commented as follows: "These people had an unproductive experience in school and were not able to benefit. We wanted to avoid the perception that they were going back. We wanted to make it different and make it work for them."

During the planning stages of the GAIN program in San Diego, a consortium of representatives from six school districts, the welfare department, and the Private Industry Council (PIC) was founded to develop the GAIN basic education services. This resulted in a new network of 21 specialized Learning Centers (i.e., classrooms) designed specifically and exclusively for GAIN students. A Learning Center model was uniformly employed in all the classrooms. Its major features were computerized instruction using up-to-date technology and software, individualized instruction, specially hired teachers, and off-campus, storefront locations to reinforce the idea of a fresh opportunity.

Tulare also added some specialized services, although not to the extent of San Diego. Like Los Angeles, Tulare contracted with the County Office of Education (COE) to act as the intermediary for education services and to set up a county-wide attendance and performance monitoring system for all seven schools that provided basic education services to GAIN students. The COE also hired several "transition counselors" serving all GAIN basic education students in the county. Their exclusive function was to respond to the needs of GAIN students while they were in education programs. They assisted with the attendance, academic, and personal issues that clients confronted while they were in the program, and they were on-site at each school several days per week.

Overall, the schools had the capacity to handle students referred from the GAIN program. The only significant problem was in San Diego, where the supply of basic education slots early on was not adequate and a waiting list developed.

An interesting decision faced by welfare and school administrators was whether to place GAIN registrants in separate classes. As shown in Table 3.1, some schools placed GAIN students in existing classes to avoid isolating (and possibly stigmatizing) them or because GAIN enrollments were insufficient to warrant separate classes. Others set up classes serving only GAIN registrants in order to efficiently accommodate the monitoring requirements or special instructional needs of these students. As mentioned above, San Diego was unique in that all schools involved in the GAIN program created classrooms devoted exclusively to GAIN students.

Like other adult basic education programs in California, GAIN's are supported primarily by the State Department of Education's Average Daily Attendance (ADA) funds, which are paid according to a formula based on the number of students attending a school. As Table 3.1 shows, four of the research counties contributed additional GAIN funds, and five also used JTPA funds.[6] These additional funds were used for the increased monitoring of attendance and performance required for GAIN students, and some were used to augment classroom services (as described below). In one county, Riverside, the GAIN program developed and funded innovative performance-based payments with several schools.[7]

According to one study, in the fiscal year ending in 1990, the state spent $205 per adult education student (including both GAIN and non-GAIN students and funding from all sources).[8] Overall, California ranked twenty-seventh in the nation in terms of expenditure level per student (the national mean was $258 per student). Thus, for the most part, the programs serving GAIN students were funded at moderate levels.

The amount of instruction offered per week varied by county, and usually by school. During the study period, most providers offered instruction for 12 to 20 hours per week – three to four hours per day, four to five days per week. Most classes were held during the day. San Diego imposed a more demanding schedule – 27 hours per week – in all the schools in the county. The "20-hour rule" specified in the JOBS regulations took effect in California in October 1990.[9] At that time, many schools increased their scheduled hours to 20 per week. However, this was after the random assignment period in each county, although it was during the follow-up period for some data sources used in this report.

In summary: The six counties were successful in arranging the basic education services for GAIN registrants. The next section discusses the content of the classroom activities.

B. Classroom Activities

As discussed above, in most counties the welfare department did not exert much control or influence over the content of education; the education providers determined the curricula and classroom activities. Most of the schools relied on the program activities they had in place when GAIN was implemented and did not change them significantly for GAIN. Thus, GAIN students generally received the same basic education services provided to other adults in California.

At most schools, students were assessed in order to determine an appropriate classroom placement

---

[6] State Job Training Partnership Act (JTPA) "8 percent funds" are set aside for education. In California, a portion has been specifically earmarked for GAIN participants.

[7] For GED and ABE students, the schools in Riverside received $100 for a GAIN student's initial placement testing and enrollment, $100 for each grade level a student advanced on the Tests of Adult Basic Education (TABE), $225 for a student's attaining a GED, and $26 per student per month attended. For ESL students, the payments were not performance-based; instead, GAIN provided $2.61 per instructional hour per ESL student.

[8] See Development Associates, 1992, pp. 84-85.

[9] This regulation requires monthly participation in a variety of activities that average 20 hours per week or more in order to meet federal participation requirements.

(GED, ABE, or ESL) and to identify discrete skills deficiencies (in both reading and mathematics).[10] For those determined appropriate for an ABE or ESL class, an individualized program was typically developed, which indicated specific skills that should be learned.[11] These skills were usually ordered in a hierarchy from easy to difficult. For example, in reading, low-level students started by decoding words and moved to decoding sentences, reading paragraphs for their direct meaning, and reading passages for more complex inferences. In mathematics, low-level students progressed through addition and subtraction, multiplication and division, fractions, percentages, and more complex word problems.[12] Individuals in a given classroom typically had a range of achievement levels and worked on a self-paced, individualized set of assignments.

Teachers monitored students' academic progress at designated intervals – typically every 100 to 200 hours. Assessment methods ranged from standardized tests administered periodically to teacher-developed assessments, such as the completion of a particular unit or chapter in a textbook.

For ABE and ESL classes, teachers relied on a mix of whole-class teaching, small groups, and computer-based instruction. On a typical day, part of the class time was spent on a group lesson – usually in the form of lecture – in which students at all levels participated. Classes often broke down into smaller groups, and some or all students worked independently on individual assignments. Many teachers also reported that peer-based instruction was used, with the more advanced students in the class assisting the others. The programs generally used published textbooks and workbooks as well as teacher- and student-developed materials.[13] Most students had their own course of study, with a particular mix of materials, although common activities included fill-in-the-blank exercises, reading exercises, and arithmetic problems. There was no consistent use of employment-related or real-life examples in instruction across the schools.

A majority of the schools in all counties provided computer-assisted instruction (CAI). Most commonly, this was in the form of a "lab," which students from all types of programs (GED, ABE, and ESL) used a few hours a week. Throughout the study period, the basic education programs in all counties generally became more automated and expanded the capacity of their CAI.[14] There was, however, some variation in the degree to which schools stayed current with technology and software.

---

[10] Standardized tests – most commonly the Tests of Adult Basic Education (TABE) – are used for this assessment. In some instances, ABE and GED students were taught together in the same classroom, although this was not common.

[11] Issues concerning completion criteria are discussed later in this chapter.

[12] For a further description and a discussion of the pros and cons of this approach, see Grubb et al., 1991.

[13] Curricula published by Steck-Vaughn and Scott Foresman were widely used in these programs.

[14] Riverside used JTPA funds to add a WASATCH computer lab to each of the contracted schools. Several providers in Tulare added the WASATCH system to their curricula in the early 1990s. The program offered (continued...)

GED classes were somewhat different from ABE instruction in that the instruction in the class was geared overwhelmingly toward completion of the GED test.[15] GED instruction primarily used published GED preparation and practice test materials, typically those developed by Contemporary or Cambridge publishers, as well as CAI packages developed for GED preparation. Students determined by the initial assessment process to be appropriate for GED classes took a complete GED practice test to ascertain in which areas to concentrate. Students sometimes studied for one GED test section at a time, took that particular segment of the test when they were ready, and then moved on to the next section.[16]

San Diego is distinctive from the other counties in that it developed the curriculum for GAIN students from the ground up. This was possible because, as discussed above, the GAIN program did not refer students to an existing institution, but instead created a program from scratch. A few individual schools within some of the other counties – notably in Los Angeles, Riverside, and Tulare – also adapted their curricula and classroom activities specifically for GAIN students. The system in San Diego stands out, however, because it was implemented county-wide.

In San Diego, the interagency consortium established a committee to develop and select the appropriate curriculum for the Learning Centers. One of the committee's main priorities was to develop a program based on CAI because it was viewed as a way of distinguishing the education services in GAIN from those previously received by this group of students. The committee also wanted a curriculum that "treated people like adults." Thus, focusing the instructional materials on life skills was considered to be important. After an extensive review of software programs, the county selected the PLATO and WASATCH packages as its primary CAI curricula. In addition, staff continuously reviewed and assessed new software packages, and added other software programs as appropriate. In addition to using computer-based instruction, instructors also employed a range of published and teacher-developed materials.

Administrators in San Diego reported that roughly 40 percent of a student's day was spent at the computer – more than was typical in other counties. ABE and ESL instruction combined a life skills and academic focus and relied to a greater extent on CAI than did most programs in other counties.

---

[14](...continued)
through the Los Angeles Community College District used the PLATO software as a key component of their curriculum.

[15] According to the National Evaluation of Adult Education, which surveyed a national, random sample of adult education providers, the classroom activities described in this section are common in adult education programs. See Development Associates, 1992.

[16] In California, students are not required to take the entire GED test in one sitting.

However, as in the other research sites, the San Diego GED programs remained focused on preparing students for the GED test.

Another distinctive feature of San Diego's basic education system was the hiring of a new teaching staff for the program. Teachers were selected based on their experience working with the adult population, but also because they recognized that the GAIN population would have different needs from the traditional adult education population. The county was looking for teachers who could "turn around" more difficult students who might be reluctant to return to school.

C. Assessing the Opportunity to Learn Provided by the Basic Education Programs

The MDRC Staff Activities and Attitudes Survey, which was administered during or slightly after the random assignment period in each county, asked GAIN staff to rate "how worthwhile" each service was to the GAIN registrants who were assigned to it. It is likely that these judgments reflect what staff learned about the activities from registrants and, in some cases, from their own visits to, or other contacts with, the schools or agencies providing the basic education services. Figure 3.1a shows the percentage of GAIN staff who gave "high" scores to the education services[17] and indicates that staff views of this activity were mostly positive, particularly in San Diego and Tulare, where approximately three-quarters of the staff gave the services a high rating. Interestingly, these are also the counties where the most adaptations and service enhancements were made to accommodate GAIN students.

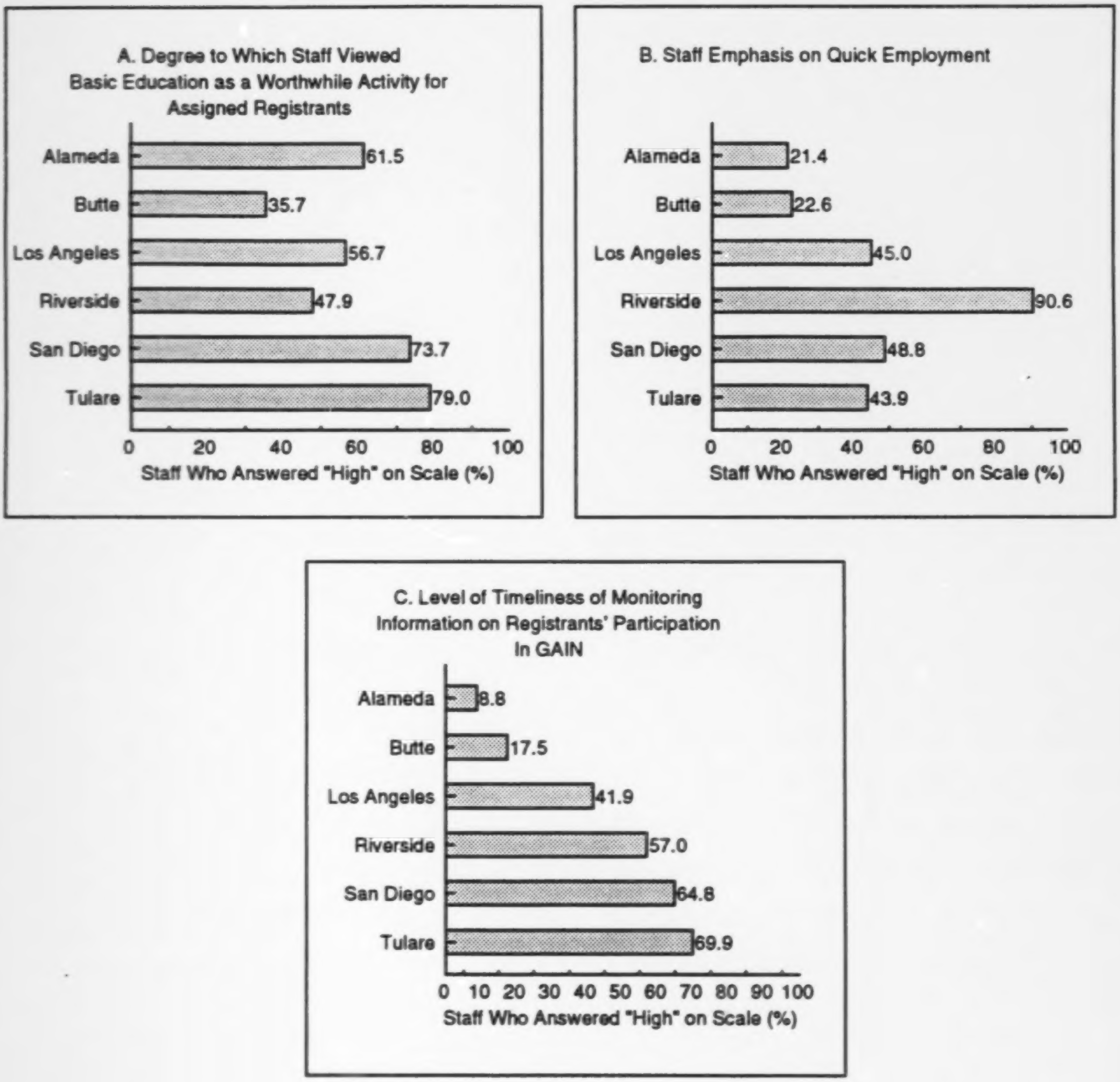
Overall, although an exact assessment of the quality of the education services cannot be provided, it can be concluded that, at a minimum, GAIN students received the standard basic education services given to all adults in California. These services appear to have offered a real opportunity for students to learn basic skills: There were very few capacity problems; the services were geared toward individuals' educational deficits and used established methods and curricula; and classes were available for a significant number of hours per week on a continuing basis. In addition, particularly in San Diego but also in some schools in other counties, efforts were made to go beyond the standard adult education curricula and to improve the basic education services provided to GAIN students, using additional funding and different curricula and instructional methods. Whether, in fact, the specific curricula or instructional methods used were effective in helping individuals in these programs learn basic skills cannot be addressed solely by examining the characteristics of these programs. It is also important to consider the education outcomes produced by the GAIN program, which are addressed in Chapter 5.

---

[17] "High" scores meant a score of 6 or 7 on a seven-point scale.

FIGURE 3.1

COUNTY DIFFERENCES IN SELECTED GAIN IMPLEMENTATION PRACTICES AND CONDITIONS



SOURCE: MDRC Staff Activities and Attitudes Survey administered during study period.

II. Pathways into and out of Basic Education

The remainder of this chapter examines participation patterns for members of the experimental group. To interpret the results of the GAIN evaluation's impact analyses and to define the magnitude of the investment made in basic education, it is essential to understand the extent to which individuals in the experimental group who were determined to need basic education took part in GAIN activities, particularly basic education services. This section of the chapter reviews and summarizes information presented in previous MDRC reports on GAIN.[18]

Figure 3.2 provides an overview of the "flow" through GAIN for those registrants who were determined to need basic education.[19] Specifically, it traces the flow of 100 typical GAIN registrants through the program over the 11-month period following their attendance at a GAIN orientation (with all six counties combined and weighted equally). The figure shows the number who participated in basic education services as well as the reasons for nonparticipation. As the figure illustrates, only a portion of those who were determined to need basic education received the service: 58 of 100 AFDC-FG (single-parent) registrants determined to need basic education were referred to basic education activities, and 41 of the 58 actually participated in such an activity.

There were two main reasons why a relatively large proportion of registrants did not participate in a basic education program. First, the GAIN legislation permits a temporary deferral from the participation requirement for those who have a part-time job, temporary illness, or another situation that precludes attending an activity; many registrants did not reach a basic education activity within the 11-month follow-up period because they were temporarily deferred from the GAIN program. Second, registrants are also not required to remain in GAIN if they leave AFDC or if they meet certain exemption criteria such as getting a full-time job or becoming chronically ill; as Figure 3.2 shows, many registrants left the GAIN program (i.e., were "deregistered") before they participated in a basic education activity. In addition, some registrants selected, or were referred to, other services, particularly job search. (As noted in Chapter 1, registrants are allowed to choose between job search and basic education as their initial activity.) Finally, some registrants, with GAIN's approval, continued in post-secondary education or vocational training courses they had begun prior to entering GAIN. (In GAIN, these are referred to as "self-initiated" activities.)

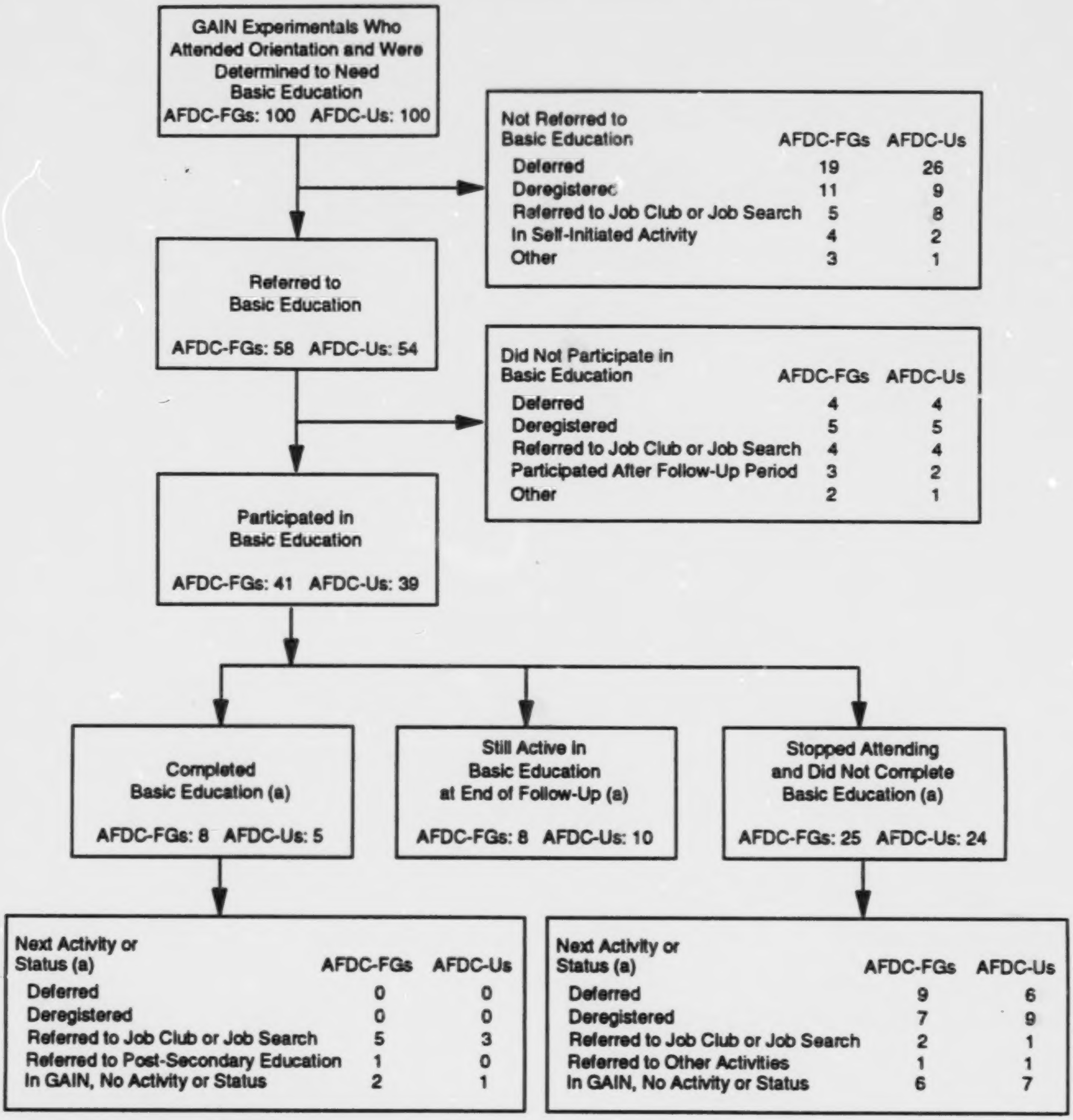
---

[18] See Freedman and Riccio, 1991, and Riccio and Friedlander, 1992.

[19] Most measures on Figure 3.2 report data from all six counties combined, with each county weighted equally. Data on completion or noncompletion of basic education, and on statuses after basic education, were not available for Alameda or Los Angeles. Thus, data from four counties (Butte, Riverside, San Diego, and Tulare) were used for these estimates.

FIGURE 3.2

CLIENT FLOW WITHIN AN 11-MONTH FOLLOW-UP PERIOD FOR 100 TYPICAL AFDC-FG AND 100 TYPICAL AFDC-U GAIN EXPERIMENTALS DETERMINED TO NEED BASIC EDUCATION



GAIN Experimentals Who Attended Orientation and Were Determined to Need Basic Education
AFDC-FGs: 100 AFDC-Us: 100

Not Referred to Basic Education	AFDC-FGs	AFDC-Us
Deferred	19	26
Deregistered	11	9
Referred to Job Club or Job Search	5	8
In Self-Initiated Activity	4	2
Other	3	1

Referred to Basic Education
AFDC-FGs: 58 AFDC-Us: 54

Did Not Participate in Basic Education	AFDC-FGs	AFDC-Us
Deferred	4	4
Deregistered	5	5
Referred to Job Club or Job Search	4	4
Participated After Follow-Up Period	3	2
Other	2	1

Participated in Basic Education
AFDC-FGs: 41 AFDC-Us: 39

Completed Basic Education (a)
AFDC-FGs: 8 AFDC-Us: 5

Still Active in Basic Education at End of Follow-Up (a)
AFDC-FGs: 8 AFDC-Us: 10

Stopped Attending and Did Not Complete Basic Education (a)
AFDC-FGs: 25 AFDC-Us: 24

Next Activity or Status (a)	AFDC-FGs	AFDC-Us
Deferred	0	0
Deregistered	0	0
Referred to Job Club or Job Search	5	3
Referred to Post-Secondary Education	1	0
In GAIN, No Activity or Status	2	1

Next Activity or Status (a)	AFDC-FGs	AFDC-Us
Deferred	9	6
Deregistered	7	9
Referred to Job Club or Job Search	2	1
Referred to Other Activities	1	1
In GAIN, No Activity or Status	6	7

SOURCE: MDRC's participant flow sample.

NOTES: The six counties were weighted equally.

Numbers may not sum to totals because of rounding.

(a) Data on completion or noncompletion of basic education and on participants' activities or status after basic education were not available for Alameda or Los Angeles.

Figure 3.2 continues by showing what happened to registrants once they reached a basic education activity. Within the 11-month period, 8 of 41 (20 percent) of those who participated in basic education completed their basic education activity (according to school records), with most of them going on to a job search activity. Twenty-five of 41 (61 percent) who participated stopped attending the basic education activity without finishing it primarily because, again, they were deferred or deregistered from GAIN. Finally, 8 of 41 (20 percent) were still participating in the activity at the end of the follow-up period.

In sum, a majority (roughly 60 percent) of those determined to need basic education did not participate in a basic education program within the follow-up period. However, the reasons for nonparticipation were almost always consistent with the GAIN legislation, and some participated in another GAIN activity (e.g., 9 of 100 of the AFDC-FG registrants were referred to a job search activity and did not participate in basic education within the follow-up period). Thus, given the GAIN legislation's provisions regarding deferrals and deregistrations, normal welfare caseload turnover, and the use of job search by some registrants, much higher rates of participation in basic education would have been difficult to achieve. In addition, many registrants stopped attending their basic education programs without completing them. Again, registrants left these activities for reasons that were in accordance with the GAIN legislation. Similar patterns held for AFDC-U (heads of two-parent families) registrants.

It is important to point out that some individuals may not have wished to return to school or to remain in GAIN's basic education activities. They may therefore have found employment or established other reasons for not participating (or continuing to participate) in basic education. The extent of such behavior was not measured for this report. However, program staff report that, although this did sometimes occur, many registrants overcame their initial hesitancy and returned to school. Given the observed participation levels, it appears that GAIN's mandate has been successful in getting a sizable number of welfare recipients to return to school, although a positive school environment and, as discussed later in this chapter, attendance monitoring and follow-up are important for maintaining participation.

III. County Participation Patterns and Emphasis on Basic Education

The analysis in the preceding section presented an overview of participation patterns for those registrants determined to need basic education, with all six counties combined. It is also important to understand how the patterns varied across the counties. Like Section II, this section of the chapter reviews and summarizes information presented in previous reports.[20] Although the GAIN model prescribes a set sequence of services, individual counties presented different messages to program registrants about the use and value of education and training activities versus job search activities.

The participation patterns of GAIN experimentals in each of the six counties are presented in Table 3.2 (for AFDC-FG registrants) and Table 3.3 (for AFDC-U registrants). The tables display the incidence of participation in each GAIN activity calculated in two different ways.[21] In each table, the top panel presents these rates for all registrants, including those who never started an activity. This approach is helpful for understanding the extent to which the entire sample received particular kinds of services. The bottom panel presents several participation rates for only those who ever participated in any GAIN activity. The latter measure is useful for comparing the mix of services across counties. These results are also totaled for all six counties, with each weighted equally.

These data show that, in each of the six research counties, basic education was the most common type of activity for those determined to need it. (Job search was the second most common.) Depending on the county, between 27 and 56 percent of AFDC-FG registrants who were determined to need basic education entered such activities.[22] Moreover, as the bottom panel in the two tables make evident, basic education was the most heavily used activity for those who actually participated in a GAIN activity, particularly in Alameda, Los Angeles, and Tulare. In these counties, the vast majority of those determined to need basic education, ranging from 83 to 91 percent of the AFDC-FGs, participated in basic education activities. Participants in Riverside and San Diego used job search and basic education in more equal proportions.

Tables 3.2 and 3.3 also show the extent of participation in each type of basic education activity (GED, ABE, and ESL). The six counties used these activities to different degrees, depending on the nature of their GAIN population. For example, reflecting its more disadvantaged population, Los Angeles had the lowest proportion of AFDC-FG GAIN participants in GED programs (15 percent) and the highest proportion in ESL programs (28 percent). In contrast, 47 percent of the AFDC-FG GAIN participants in Tulare attended a GED program. The participation patterns of AFDC-U registrants were

---

[20] See Freedman and Riccio, 1991, and Riccio and Friedlander, 1992.

[21] There are many ways to define and measure participation in welfare-to-work programs. The analysis in this section uses a fairly simple indicator, defining participation as "ever" having participated in the indicated activity within the 11-month follow-up period. Registrants were counted as having ever participated in a GAIN activity if they attended at least once, although most participants stayed much longer than this. This definition differs substantially from the one embodied in the federal regulations for the JOBS program.

[22] The participation rate in basic education, as well as the overall participation rate, was lowest in Butte in part because that county delayed assigning orientation attenders to case managers in order to limit the size of case managers' caseloads while still including as many people as possible in orientation and appraisal sessions.

TABLE 3.2

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: PARTICIPATION PATTERNS WITHIN 11 MONTHS OF GAIN ORIENTATION AMONG AFDC-FG EXPERIMENTALS

Sample and Measure	Alameda	Butte	Los Angeles	Riverside	San Diego	Tulare	All Counties
All experimentals							
Ever participated in (%)							
Any GAIN activity	63.9	37.0	53.9	57.5	51.1	60.3	54.0 ***
Job search	14.0	5.6	8.8	28.7	22.6	8.2	14.7 ***
Basic education	55.5	26.9	44.8	32.3	34.3	54.8	41.4 ***
GED	18.8	14.8	8.2	14.4	12.4	28.1	16.1 ***
ABE	35.4	6.5	23.5	11.4	17.5	24.0	19.7 ***
ESL	2.8	5.6	15.2	7.8	6.6	9.6	7.9 ***
Self-initiated activity	2.0 (a)	5.6	4.5	8.4	9.5	2.1	5.4 ***
Post-assessment activity	9.2 (a)	0.9	0.4	3.0	2.9	6.2	3.8 ***
Any education or training activity	61.1	33.3	49.2	41.9	43.1	58.2	47.8 ***
Ever deferred (%)	47.3	27.8	49.1	48.5	67.9	59.6	50.0 ***
Reason for first deferral (%)							
Employment	14.0	23.3	16.8	27.2	26.9	25.3	22.3 ***
Other	86.0	76.7	83.2	72.8	73.1	74.7	77.8 ***
Ever in conciliation, sanctioned, or slated for sanctioning (%)	2.3	10.2	33.5	37.1	19.7	11.0	19.0 ***
Ever deregistered (%)	30.0	56.5	45.6 (b)	80.2	57.7	41.1	51.8 ***
With request for sanction	0.0	5.6	5.0 (b)	9.6	4.4	2.1	4.5 ***
Was GAIN registrant at end of 11-month follow-up period (c) (%)	n/a	48.2	n/a	30.5	48.2	64.4	47.8 ***
Sample size	393	108	2,430	167	137	146	3,381
Experimentals who started any GAIN activity (d)							
Participated in (%)							
Job search	21.9	15.0	16.3	50.0	44.3	13.6	26.9 ***
Basic education	86.9	72.5	83.1	56.3	67.1	90.9	76.1 ***
GED	29.5	40.0	15.1	25.0	24.3	46.6	30.1 ***
ABE	55.4	17.5	43.5	19.8	34.3	39.8	35.1 ***
ESL	4.4	15.0	28.2	13.5	12.9	15.9	15.0 ***
Self-initiated activity	3.2 (a)	15.0	8.3	14.6	18.6	3.4	8.0 ***
Post-assessment activity	14.3 (a)	2.5	0.7	5.2	5.7	10.2	6.4 ***
Any education or training activity	95.6	90.0	91.2	72.9	84.3	96.6	88.4 **
Sample size	251	40	1,310	96	70	88	1,855

(continued)

TABLE 3.2 (continued)

SOURCE: MDRC's participant flow sample.

NOTES: The "all county" estimate is the average of the county estimates, with each county weighted equally.

A chi–square test was applied to differences among counties. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) Alameda registrants already in vocational education at orientation were coded as participating in vocational education instead of in self–initiated vocational education. This policy causes the post–assessment activity percentage, which includes vocational education, to be higher and the self–initiated activity percentage to be lower than if the coding had been consistent with that in the other counties.

(b) The deregistration rates for Los Angeles were adjusted upward by dividing by 0.7; a comparison of deregistration records in registrant casefiles and the GEARS system for a randomly selected subsample of 87 registrants revealed that only 7 of 10 deregistrations recorded in the casefiles were also recorded in GEARS.

(c) These data were not collected in Alameda and Los Angeles.

(d) This sample includes only those experimentals who ever participated in any GAIN activity, excluding appraisal and assessment.

TABLE 3.3

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: PARTICIPATION PATTERNS WITHIN 11 MONTHS OF GAIN ORIENTATION AMONG AFDC-U EXPERIMENTALS

Sample and Measure	Alameda	Butte	Los Angeles	Riverside	San Diego	Tulare	All Counties
All experimentals							
Ever participated in (%)							
Any GAIN activity	52.6	45.5	35.5	65.7	43.6	58.8	50.3 ***
Job search	5.1	12.1	3.5	35.4	15.5	12.7	14.1 ***
Basic education	51.3	30.3	31.0	38.4	31.8	50.0	38.8 ***
GED	5.1	15.2	2.0	7.1	8.2	16.7	9.1 ***
ABE	12.8	1.5	5.0	10.1	15.5	19.6	10.8 ***
ESL	34.6	13.6	24.8	21.2	10.0	16.7	20.2 ***
Self-initiated activity	0.0 (a)	4.5	2.6	4.0	4.5	4.9	3.4 *
Post-assessment activity	1.3 (a)	0.0	0.1	0.0	4.5	2.9	1.5 ***
Any education or training activity	51.3	34.8	33.6	40.4	38.2	54.9	42.2 ***
Ever deferred (%)	57.7	15.2	70.7	41.4	64.5	52.0	50.3 ***
Reason for first deferral (%)							
Employment	42.2	10.0	52.9	31.7	54.9	22.6	35.7 ***
Other	57.8	90.0	47.1	68.3	45.1	77.4	64.3 ***
Ever in conciliation, sanctioned, or slated for sanctioning	1.3	12.1	15.1	43.4	12.7	14.7	16.6 ***
Ever deregistered (%)	30.8	60.6	34.3 (b)	76.8	49.1	48.0	49.9 ***
With request for sanction	1.3	4.5	2.1 (b)	16.2	0.0	2.0	4.4 ***
Was GAIN registrant at end of 11-month follow-up period (c) (%)	n/a	47.0	n/a	31.3	58.2	58.8	48.8 **
Sample size	78	66	687	99	110	102	1,142
Experimentals who started any GAIN activity (d)							
Participated in (%)							
Job search	9.8	26.7	9.8	53.8	35.4	21.7	26.2 ***
Basic education	97.6	66.7	87.3	58.5	72.9	85.0	78.0 *
GED	9.8	33.3	5.7	10.8	18.8	28.3	17.8 ***
ABE	24.4	3.3	13.9	15.4	35.4	33.3	21.0 ***
ESL	65.9	30.0	69.7	32.3	22.9	28.3	41.5 ***
Self-initiated activity	0.0 (a)	10.0	7.4	6.2	10.4	8.3	7.1
Post-assessment activity	2.4 (a)	0.0	0.4	0.0	10.4	5.0	3.0 ***
Any education or training activity	97.6	76.7	94.7	61.5	87.5	93.3	85.2
Sample size	41	30	244	65	48	60	488

SOURCES AND NOTES: See Table 3.2.

similar to those of AFDC-FG registrants. The only notable difference was the higher proportion of AFDC-U registrants who participated in ESL – as many as 70 percent of AFDC-U participants (in Los Angeles, which served a high proportion of refugees).

Other measures in Tables 3.2 and 3.3 show that many registrants were deregistered or deferred from the GAIN program at some point during the 11-month follow-up period. For the AFDC-FGs, the deferral rate ranged from 28 percent in Butte to 68 percent in San Diego, while the deregistration rate ranged from 30 percent in Alameda to 80 percent in Riverside. As discussed above, these were the primary reasons registrants determined to need basic education did not participate in a basic education activity.

The county GAIN programs differed in their use of the formal enforcement process – in particular, financial sanctions – as a method of securing registrants' compliance with the program's participation obligation.[23] Some believed that high compliance could be achieved without a heavy reliance on sanctions, and that efforts should be made to avoid imposing them except as a last resort. Others believed that sanctions are an essential tool for obtaining compliance and that, as long as the enforcement process is administered fairly, case managers should not take extraordinary steps to avoid using sanctions. Tables 3.2 and 3.3 show that Riverside used the conciliation process and resorted to sanctioning much more than any of the other research counties. Overall, 10 percent of the AFDC-FG registrants were referred for sanctioning in Riverside compared to zero to 6 percent in the other counties. Similar results were found for the AFDC-U registrants.[24]

The counties also differed in the first activity registrants attended. In Alameda and Tulare, the first activity for registrants determined to need basic education was far more likely to be basic education (and far less likely to be job search) than was the case in Riverside. (See Figure 3.3.) This was also true in Butte and Los Angeles. In San Diego, the job search rate was higher than the county intended because, as discussed above, the supply of basic education slots early on was not adequate. This resulted in a waiting period during which some people slated for basic education were referred to job search.

The policies and practices staff followed on a day-to-day basis also substantially influenced the

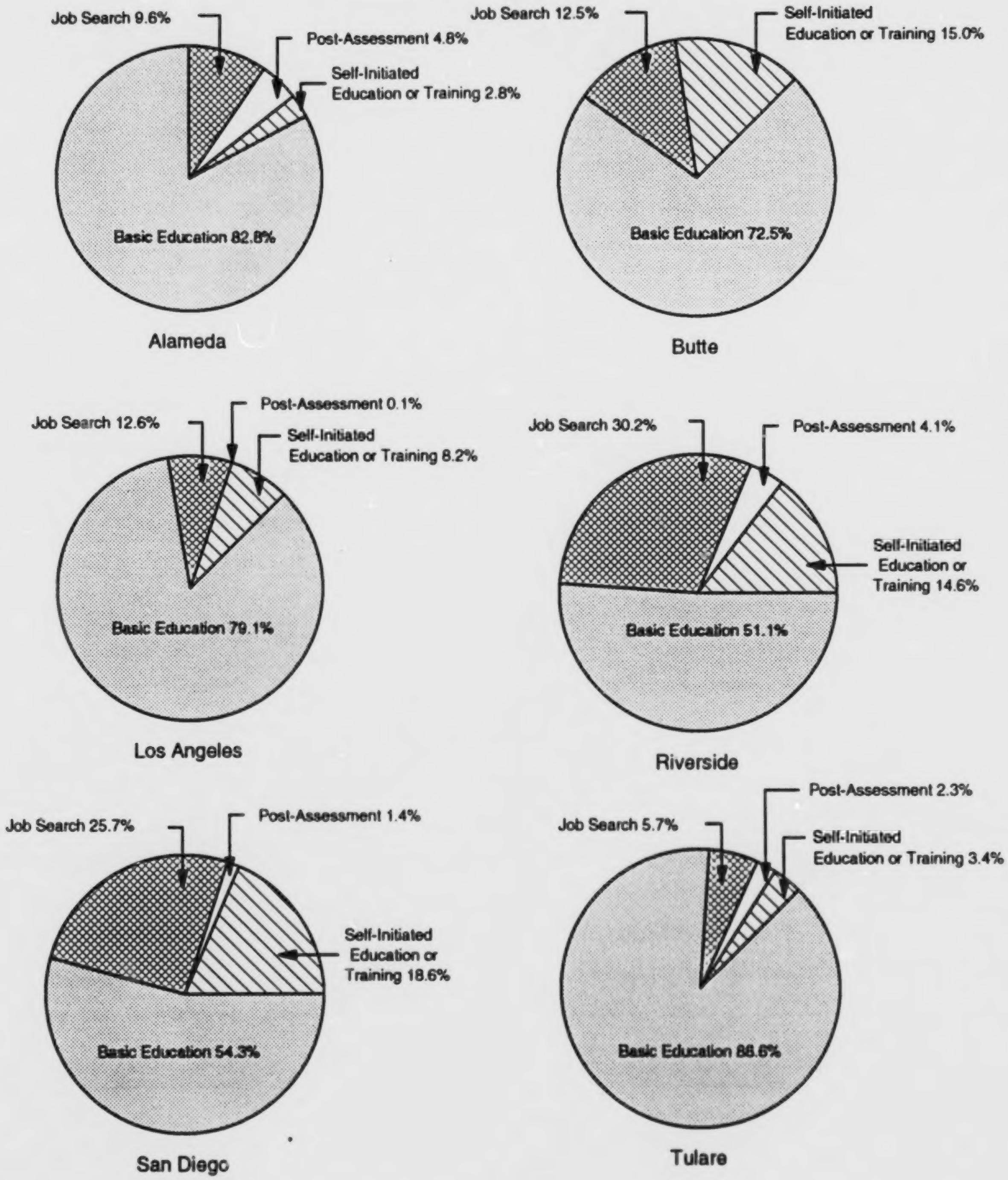
---

[23] In the GAIN program, there is an official multistep process for imposing penalties on registrants who fail to attend their assigned activity regularly. It begins with the registrant's being sent a Notice of Participation Problems outlining the sanctions that may be applied if the problems continue. This notice instructs the registrant to call or visit the case manager for a "cause determination" meeting and warns that a failure to respond may affect the registrant's welfare benefits. If no "good cause" is found to account for the participation problem, the next step is conciliation, where the case manager attempts to get the registrant to agree to begin participating as required. The final step is financial sanctioning, whereby the registrant's welfare grant is reduced by eliminating her or his share of the grant until the registrant cooperates.

[24] For further explanation of the counties' formal enforcement policies, see Riccio and Friedlander, 1992.

FIGURE 3.3

FIRST ACTIVITY FOR AFDC-FG EXPERIMENTALS DETERMINED TO NEED BASIC EDUCATION WHO STARTED ANY GAIN ACTIVITY



Alameda

Butte

Los Angeles

Riverside

San Diego

Tulare

SOURCE: MDRC's participant flow sample.

direction taken by the county programs.[25] For example, staff in some counties told MDRC researchers that they tended to discourage registrants who entered job search from seeking very low-paying jobs or positions perceived as "dead-end" jobs, urging them instead to take full advantage of the education and training opportunities offered by GAIN. In other counties, the primary objective was to encourage immediate employment, with a lower priority being attached to the starting wage rate.

GAIN staff responses to the MDRC Staff Activities and Attitudes Survey also demonstrate these different philosophies. To compare counties, a scale was constructed from items on the survey that measured each county's staff's emphasis on quick employment.[26] The summary data for each county are presented in Figure 3.1b, where a higher score on the quick job entry scale is represented by a longer bar. Riverside clearly stands apart from the other counties on this dimension: Its staff placed much more emphasis on moving registrants into the labor market quickly than did the staff in any other county. Alameda and Butte had the lowest scores. Los Angeles, San Diego, and Tulare ranked in between, but closer to Alameda and Butte than to Riverside.

In sum, several counties (particularly Alameda, Butte, Los Angeles, and Tulare) operated GAIN programs with both a higher proportion of registrants who participated in basic education activities and a program "message" that stressed these activities. Riverside was unique in the emphasis it placed on quick job entry and its relatively equal rates of participation in basic education and job search activities for those determined to need basic education. Along these dimensions, the GAIN program in San Diego fell in the middle range.

IV. The Amount of Basic Education Received by Participants

The remainder of this chapter augments the previously published reports by examining in detail one group of GAIN registrants: those who *attended* a basic education activity at least once, a group referred to in this discussion as "basic education participants." This section reports on the number of months basic education participants attended these activities and the total number of hours they were scheduled to receive these services over a two- to three-year follow-up period. (Later sections discuss the actual number of hours participants attended their classes.) These measures are important from a policy perspective because they represent one way of gauging the "investment" made in human capital development. Defining the nature of this investment is crucial to understanding the payoff that can be expected from basic education. Economists speak of "opportunity costs," meaning that doing one thing costs a person the opportunity to do something else. Participants in basic education had two primary opportunity costs: some possible forgone earnings (because they could not be at work during the hours they spent in school) and time they could have spent in other activities such as working around the house. However, opportunity costs can be recovered if the person's investment in basic education has its intended payoff: increased earnings in the long run. Of course, length of participation in basic education also affects another kind of cost: the actual cost of the GAIN program.

---

[25] For a further discussion, see Friedlander, Riccio, and Freedman, 1993.

[26] For a description of the methodology that was used to create scales based on the staff survey, see Riccio and Friedlander, 1992.

The information in this section is based on self-reported survey data from five counties: Alameda, Los Angeles, Riverside, San Diego, and Tulare (it was not possible to include Butte in the survey because resources for survey and test administration were limited).[27] Sample sizes for AFDC-Us were not large enough to make possible reliable county-specific results. Thus, the results for this group were pooled, with all counties being weighted equally. AFDC-FG results are presented separately for individual counties and also pooled, again with all counties being weighted equally.

The follow-up period for the survey ranged from two to three years within each county, averaging approximately 26 months in Riverside, San Diego, and Tulare, 30 months in Alameda, and 37 months in Los Angeles (see Appendix Table C.1). The findings are generally not sensitive to the different follow-up periods. Appendix Table C.1 presents results using a uniform 24-month follow-up period.

The use of survey data to measure length of stay introduces potential measurement biases that should be kept in mind when interpreting the data. First, survey data may underreport short education episodes if respondents forget short activities more readily than long ones; if so, the estimates will overstate average length of stay. To examine this potential bias, survey-reported length of stay was adjusted using some program tracking data.[28] It was calculated that the estimates of average length of stay among participants in basic education could be about 25 percent lower than the estimates obtained directly from the survey data and presented in this report. Second, as will be discussed, some individuals were still participating in basic education activities at the end of the two- to three-year follow-up period. This caused the average length of stay reported in the survey to be underestimated. These two biases worked in opposite directions. However, the overall bias could not be determined by the available data.

---

[27] In the GAIN evaluation, two sources of information about how long participants stayed in basic education are available: program tracking data and the registrant survey. Program tracking data (which were used for duration measures in previous MDRC reports on GAIN) followed sample members for only 11 months. Length-of-stay information is therefore truncated, and estimates of average length of stay among education participants will understate the true duration of *completed* episodes of education. The analysis in this report relies primarily on survey data, which reflect a two- to three-year follow-up period.

[28] The adjusted length of stay was calculated as the weighted average of three components: the average length of stay computed from sample members reporting participation on the survey; the average length of stay for sample members with participation listed only in the program tracking data; and an imputed average length of stay for probable participation reported in neither the survey nor the program tracking data. To calculate average lengths of stay for the second and third components, the sample used consisted of cases that responded to the survey and for whom there were also program tracking data. For the second and third components, the average length of stay was assigned as the computed average (truncated) length of stay for cases with participation listed in the program tracking data but not reporting participation in the survey. It should be noted that the requisite data were available only for Riverside, San Diego, and Tulare.

This analysis examines only members of the experimental group who reported on the survey that they had *attended a basic education activity* for at least one day during the follow-up period. It begins by presenting the results for ABE and GED participants combined (the survey did not distinguish between these two types of education activities, and the results for both are reported as one measure). Then information about ESL participants is presented, followed by information for all types of basic education components combined (GED, ABE, and ESL).[29] Finally, this section concludes with a discussion of the amount of basic education received by various subgroups of participants.

A. Number of Months Attending ABE/GED Activities

Table 3.4 shows the number of months ABE/GED participants reported that they attended the activity within the two- to three-year follow-up period. The first panel shows that participants attended for a substantial amount of time – an average of 8 months across all the counties. The number of months spent in these activities was longest in Los Angeles (11 months) and shortest in Riverside and San Diego by more than half as much (5 months). Alameda and Tulare fell in between at 9 months.[30] The median number of months in ABE/GED was somewhat lower than the average, except in Riverside and San Diego. Overall, the average ABE/GED participant attended class for one school year.

The distribution of the number of months in ABE/GED also reveals interesting patterns (see Table 3.4). Approximately 60 percent of ABE/GED participants attended their education activities for 6 months or less, and 80 percent attended for one year or less. The results for Riverside and San Diego were more skewed: There 80 percent of the ABE/GED students stayed for less than 6 months. In sum, there was a fairly wide spread in the length of stay: Roughly 60 percent of the participants left their basic education activities within 6 months, and 20 percent stayed for longer than one year.

This table also reports the proportion still participating in activities at the end of the follow-up

---

[29] Data on participation in education activities collected from the survey include participation in activities arranged through the GAIN program as well as participation in activities that registrants attended on their own initiative.

[30] Looking at the results using a uniform follow-up period of 24 months, one finds that the length of stay is approximately one month shorter in Alameda (8 months) and Los Angeles (10 months). The results in Riverside, San Diego, and Tulare do not change. See Appendix Table C.2.

TABLE 3.4

FOR ABE/GED PARTICIPANTS: AVERAGE, MEDIAN, AND PERCENTAGE DISTRIBUTION OF NUMBER OF MONTHS IN ABE/GED WITHIN A TWO- TO THREE-YEAR FOLLOW-UP PERIOD, BY AFDC STATUS AND COUNTY

	AFDC-FGs						AFDC-Us (a)
Measure	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Average number of months in ABE/GED	8.5	11.2	5.1	5.1	8.7	7.7	6.9
Median number of months in ABE/GED	6.4	10.0	5.1	5.1	7.6	5.5	5.7
Percentage distribution of number of months in ABE/GED							
Less than 2 months	8.8	10.9	27.7	23.2	16.0	17.3	28.3
2-6 months	44.1	23.9	53.8	57.1	29.3	41.7	26.5
7-12 months	26.5	34.8	12.3	12.5	32.0	23.6	33.9
13-18 months	12.7	8.7	1.5	5.4	10.7	7.8	6.2
19-24 months	3.9	17.4	3.1	1.8	12.0	7.6	0.0
25-28 months	2.0	0.0	1.5	0.0	0.0	0.7	5.1
29 months or more	2.0	4.3	0.0	0.0	0.0	1.3	0.0
Percent participating in ABE/GED at the end of the follow-up period	16.7	17.4	6.2	16.1	13.3	13.9	4.6
Average number of months on AFDC within a 2-year follow-up period	23.0	22.7	17.6	20.6	20.9	21.0	20.5
Sample size	102	46	65	56	75	344	28

SOURCE: MDRC calculations using data from the GAIN registrant survey and county AFDC records.

NOTES: The follow-up period for the survey ranged from 26 to 37 months, on average, across the five counties. Butte County was not included in the GAIN survey. See Appendix Table C.1 for further information on the follow-up period in each county.

This table contains estimates for sample members from the experimental group and includes participation in activities arranged through the GAIN program, as well as those that registrants participated in on their own initiative.

The "all county" estimate is the average of the county estimates, with each county weighted equally.

Distributions may not add to 100.0 percent because of rounding.

(a) The AFDC-U sample does not include any registrants from Alameda.

period. Overall, roughly 14 percent were participating in ABE/GED at the end of the two- to three-year follow-up period. Most of these individuals were in the initial spell of their activity (meaning that they did *not* leave the activity and return at a later date),[31] although about one-quarter started in the initial spell in the second year of follow-up.

It is important to note that the length of time spent on AFDC reflects the amount of time a registrant is "available" to participate in activities. Thus, to some extent, the county variation in the duration of education activities was influenced by the amount of time GAIN participants spent on AFDC in each county. The last row of Table 3.4 shows length of time on AFDC for basic education participants within a two-year follow-up period; this ranged from 18 months in Riverside to 23 months in Alameda and Los Angeles. (When interpreting these numbers, it should be remembered that registrants can leave the GAIN program and still remain on AFDC, or be temporarily deferred from participating in activities while remaining in the GAIN program.) Particularly in Alameda and Los Angeles, and consistent with their focus on serving long-term recipients, participants remained on AFDC for longer periods and attended their basic education activities for a greater amount of time. In contrast, in Riverside, the length of time on AFDC was shorter, as was the duration of basic education activities. However, the closeness of this measure across some of the counties suggests that other factors, such as the county implementation practices discussed earlier in this chapter, can also play a role in explaining the length of basic education activities.

B. Total Scheduled Hours in ABE/GED Activities

This discussion concerns the total number of hours of ABE/GED instruction basic education participants were scheduled for during the two- to three-year follow-up period. It is important to note two things. First, these estimates are *not* the total number of hours participants actually attended these classes. Rather, because participants may not have attended all their scheduled classes, these estimates represent an upper boundary of the number of hours they actually attended class. Data on actual hours of participation, obtained from school attendance records, are discussed later in this chapter, but are available for only a small sample of individuals from selected counties. Thus, the measures of scheduled hours are useful for comparative purposes (across counties and subgroups) and for establishing the maximum level of education received.

Second, total scheduled hours reflect the maximum number of hours of basic education the registrant could have received, given the number of weeks she or he reported attending class and the number of hours per week for which she or he reported the class to have been scheduled over the two- to three-year follow-up period (i.e., the total scheduled hours for each individual are the product of that person's average weekly scheduled hours and the number of weeks that person attended basic education classes).[32]

---

[31] In Alameda and San Diego, a greater proportion (18 and 44 percent, respectively) of those still participating had left an initial basic education activity and then returned to another.

The first row of Table 3.5 shows the number of hours per week ABE/GED participants reported they were scheduled for their classes. On average, participants reported they were scheduled for basic education activities for roughly 20 hours per week. As noted above, Los Angeles and San Diego scheduled classes for more hours per week (roughly 25) than did the other counties (which averaged roughly 17 hours per week).

As illustrated in the second row of Table 3.5, the average number of total scheduled hours in ABE/GED activities was large – 663 hours per AFDC-FG participant, on average. Los Angeles had almost twice as many total scheduled hours (1,107) as the other counties, again partly reflecting the high proportion of long-term recipients served by that program. Riverside had the lowest number, with an average of 476 hours per participant.[33] It is important to note that the total number of scheduled hours in San Diego was similar to that in Alameda and Tulare, even though the number of months in basic education activities was considerably smaller in San Diego (see Table 3.4). Because participants were scheduled for more hours per week in San Diego, they received a similar amount of services in a shorter time period. Across all counties, approximately one-half of the participants were scheduled to receive 500 hours or fewer, and (except in Los Angeles) about 20 percent were scheduled for more than 1,000 hours of ABE/GED.

C. Number of Months Attended and Total Scheduled Hours for ESL Participants

Table 3.6 shows the amount of basic education received – both the number of months attended and the total scheduled hours – for ESL participants. Because of small sample sizes, these measures were pooled across the counties (with all counties being weighted equally) for AFDC-FG and AFDC-U participants.

In comparison to ABE/GED participants, ESL participants attended their activities for a longer time, averaging 10 months for AFDC-FG registrants across all the counties within the two- to three-year

---

[32] Total scheduled hours do *not* represent the amount of time the GAIN program scheduled participants for class.

[33] When the results are looked at using a uniform follow-up period of 24 months, the total scheduled hours in ABE/GED activities were somewhat shorter in Alameda (517 hours) and Los Angeles (994 hours). The results in Riverside, San Diego, and Tulare changed only slightly. See Appendix Table C.3.

TABLE 3.5

FOR ABE/GED PARTICIPANTS: AVERAGE, MEDIAN, AND PERCENTAGE DISTRIBUTION OF TOTAL SCHEDULED HOURS IN ABE/GED WITHIN A TWO- TO THREE-YEAR FOLLOW-UP PERIOD, BY AFDC STATUS AND COUNTY

	AFDC-FGs						AFDC-Us (a)
Measure	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Average weekly scheduled hours in ABE/GED	16.0	25.0	17.5	24.3	17.1	20.0	18.4
Average total scheduled hours in ABE/GED	560.1	1,106.6	476.4	545.0	628.1	663.3	650.3
Median total scheduled hours in ABE/GED	437.2	1,090.7	297.1	543.3	580.7	528.6	484.3
Percentage distribution of total scheduled hours in ABE/GED							
Less than 100 hours	11.8	4.3	27.7	16.1	6.7	13.3	29.5
100-249 hours	22.5	6.5	15.4	10.7	24.0	15.8	4.5
250-499 hours	16.7	13.0	33.8	19.6	16.0	19.8	18.6
500-999 hours	32.4	21.7	12.3	42.9	32.0	28.3	25.4
1,000-1,499 hours	9.8	30.4	3.1	5.4	13.3	12.4	16.9
1,500 hours or more	6.9	23.9	7.7	5.4	8.0	10.4	5.1
Sample size	102	46	65	56	75	344	28

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: See Table 3.4.

TABLE 3.6

FOR ESL PARTICIPANTS: AVERAGE, MEDIAN, AND PERCENTAGE DISTRIBUTION OF NUMBER OF MONTHS AND TOTAL SCHEDULED HOURS IN ESL WITHIN A TWO- TO THREE-YEAR FOLLOW-UP PERIOD, BY AFDC STATUS

Measure	AFDC-FGs	AFDC-Us (a)
Average number of months in ESL	10.1	11.2
Median number of months in ESL	7.5	10.7
Percentage distribution of number of months in ESL		
Less than 2 months	4.9	0.0
2-6 months	40.2	35.8
7-12 months	31.7	26.7
13-18 months	7.9	27.5
19-24 months	7.6	2.5
25-28 months	7.8	2.5
29 months or more	0.0	5.0
Percent participating in ESL at the end of the follow-up period	26.9	12.5
Average weekly scheduled hours in ESL	17.9	16.7
Average total scheduled hours in ESL	774.0	885.8
Median total scheduled hours in ESL	537.1	685.7
Percentage distribution of total scheduled hours in ESL		
Less than 100 hours	6.1	12.5
100-249 hours	21.3	0.0
250-499 hours	22.4	23.3
500-999 hours	18.1	24.2
1,000-1,499 hours	15.7	30.0
1,500 hours or more	16.4	10.0
Average number of months on AFDC within a 2-year follow-up period	20.4	20.4
Sample size	56	16

SOURCES AND NOTES: See Table 3.4.

follow-up period.[34] In this time period, AFDC-FG participants were scheduled to receive 774 hours of ESL services. A significant portion – over one-quarter – were participating in ESL at the end of the follow-up period. Length of stay in ESL was spread somewhat more equally than in ABE/GED: Roughly 75 percent of the AFDC-FG participants attended for one year or less. Approximately one-half were scheduled to receive 500 hours or less of ESL, although 16 percent were scheduled for 1,500 hours. Overall, the length of time for GAIN registrants to learn English appears to have been substantial.

A summary measure of the amount of basic education received by all types of basic education participants combined (GED, ABE, and ESL) is presented in Appendix Table C.5. As shown, across all types of basic education activities, participants attended for 8 months and were scheduled for 672 hours.[35] The county variation followed patterns similar to those described above.

D. Amount of Basic Education Received by Subgroups of Participants

In order to understand the investment in basic education made by different types of GAIN registrants, the analysis in this subsection examines the number of months and total scheduled hours in basic education for a set of subgroups defined by demographic characteristics collected when registrants entered the GAIN program. This is done in order to determine whether certain types of registrants were more likely to spend shorter or longer periods in basic education. While those at lower education levels were expected to stay longer, it is possible that this group was less motivated or interested in school, and thus more likely to leave the basic education activities relatively quickly.[36]

The educational achievement levels of participants are defined in several different ways: whether they scored 215 or above on the reading or mathematics CASAS test (or on both tests),[37] whether they had a high school diploma or a GED, and the highest grade they completed. Subgroups relating to the economic status of the registrants are also examined. These include whether the registrant was an AFDC applicant, a short-term recipient (on AFDC for two years or less), or a long-term recipient (on AFDC for more than two years), and whether the registrant was employed in the prior year. An overall ranking of "disadvantagedness" was also created, and was defined as those who were lacking a high school diploma or a GED, were long-term recipients, and had no earnings in the prior year. Finally, subgroups based on the age of the registrant are also examined.[38]

---

[34] Looking at the results for ESL participants using a uniform follow-up period of 24 months, one finds that the average number of months attended was approximately one month shorter (9 months) and that average total scheduled hours were reduced slightly (to 721 hours). See Appendix Table C.4.

[35] This is substantially more education than is typically received through the adult basic education system. A recent study, following a national random sample of adult education students over a one-year follow-up period, found that these students attended class for 4 months and received 80 hours of instruction on average (for GED, ABE, and ESL components combined). See Development Associates, 1993. However, the amount of basic education received by GAIN participants may be similar to that received in the Saturation Work Initiative Model (SWIM), a welfare-to-work program operating in San Diego County (prior to GAIN), where basic education was not the initial, but a later, activity in the program model. Unpublished data from the SWIM evaluation show that basic education participants in SWIM attended their activities for 7 months on average. See Friedlander and Hamilton, 1993, for the most recent findings from the SWIM evaluation.

[36] This report did not collect information on the interest or motivation levels of basic education participants.

[37] As discussed in Chapter 2, the CASAS reading and mathematics basic skills tests are administered to registrants when they enter the GAIN program. The cutoff of 215 is used in the present analysis because it is one criterion used by the GAIN program to determine whether GAIN registrants need basic education.

The subgroup results on the number of months participants attended basic education and their average total scheduled hours in ABE/GED activities are presented in Table 3.7.[39] (Only the average number of months attended is discussed in the text, but similar patterns hold for the number of total scheduled hours.) Overall, the average number of months participants attended ABE/GED was longer for those at lower education and economic levels. Those who scored below 215 on the reading or mathematics CASAS test participated in ABE/GED for a significantly longer period than did those who scored higher (9 versus 7 months for reading and 8 versus 6 months for mathematics). Length of stay also increased with age: Those below 25 years of age participated for 5 months, whereas those over the age of 45 participated for almost 10 months.

The summary measure of disadvantagedness (which incorporates employment and welfare history information) also indicates that length of stay was greatest for the "most disadvantaged." Length of stay was approximately 9 months for this group, compared to 6 months for those who were "less disadvantaged." In sum, it appears that those at lower education levels do stay longer in activities than those at higher levels. This suggests that low achievement is not necessarily a barrier to participating in basic education. Rather, it appears that *because of* low educational achievement, this group participates in basic education activities for a longer period of time. In addition, because these more disadvantaged individuals tended to spend more time on AFDC, they may have been available to participate in activities for a longer period of time.[40]

---

[38] The demographic characteristics of survey responders for selected subgroups (i.e., subgroups based on CASAS test scores and disadvantagedness criteria) are presented in Appendix Table C.6. This table indicates that those at lower literacy levels were more likely to be long-term AFDC recipients and not to have worked in the past two years.

[39] Sample sizes were too small to conduct this subgroup analysis for ESL participants.

[40] The most disadvantaged group was on AFDC for 22 months within a two-year follow-up period. The less disadvantaged group was on AFDC for 20 months during the same period.

TABLE 3.7

FOR AFDC–FG ABE/GED PARTICIPANTS: AVERAGE NUMBER OF MONTHS AND TOTAL SCHEDULED HOURS IN ABE/GED, BY SELECTED CHARACTERISTICS AT GAIN ORIENTATION

Characteristic and Subgroup	Percent of Sample	Average Number of Months in ABE/GED	Average Total Scheduled Hours in ABE/GED
Score on CASAS reading test			
225 or above	52.0	7.2 *	607.4 ***
215–224	20.6	7.2	548.0
214 or below	20.1	9.1	851.2
Score on CASAS math test			
215 or above	29.4	5.9 ***	476.2 ***
214 or below	63.4	8.0	684.6
Score on both CASAS tests			
215 or above on both	28.5	5.8 ***	467.3 ***
214 or below on one	45.1	7.8	632.4
214 or below on both	19.2	9.0	842.6
High School Diploma or GED			
Yes	19.8	5.9 **	569.8
No	80.2	8.0	675.8
Highest grade completed			
11 or above	47.7	6.8 **	603.9 **
9 or 10	36.0	7.9	650.8
8 or below	16.3	9.7	848.3
Aid status (a)			
Applicant	7.3	6.5 **	592.9 **
Short–term recipient	15.7	5.1	431.8
Long–term recipient	77.0	8.0	685.0
Summary measure of disadvantagedness (b)			
Less disadvantaged	54.7	6.8 ***	595.0 **
Most disadvantaged	45.1	8.7	738.4
Employed in prior year			
Yes	27.6	7.2	617.6
No	72.1	7.9	676.6
Age			
24 or under	7.6	5.1 *	450.4
25–34	49.7	7.6	642.0
35–44	34.9	8.2	716.0
45 or over	7.8	9.6	765.1
Sample size	344		

SOURCE: MDRC calculations using data from GAIN intake forms and the registrant survey.

NOTES: Sample characteristics were recorded on the intake form by GAIN staff at orientation and are based on answers from GAIN registrants.

The follow–up period for the survey ranged from 26 to 37 months, on average, across Alameda, Los Angeles, Riverside, San Diego, and Tulare counties. Butte County was not included in the GAIN survey. See Appendix Table C.1 for further information on the follow–up period in each county.

This table contains estimates for sample members from the experimental group and includes participation in activities arranged through the GAIN program, as well as those that registrants participated in on their own initiative.

(continued)

TABLE 3.7 (continued)

The estimates presented are the average of the county estimates, with each county weighted equally.

Distributions may not add to 100.0 percent because of rounding. A small proportion of individuals were missing CASAS test scores and are not included in the subgroups based on this variable. Finally, one case was lacking the identifying information necessary to calculate prior earnings. It is not included in the analysis of the level of disadvantage or employment in prior year subgroups.

An F test was applied to differences among subgroups within a characteristic. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) Applicants are registrants who were applying for AFDC at the time of referral to GAIN orientation; they include reapplicants who may have had prior AFDC receipt. Short-term recipients had received AFDC for two years or less; long-term recipients had received AFDC for more than two years (the AFDC receipt may not have been continuous).

(b) The "most disadvantaged" individuals are those who did not have a high school diploma or GED, were long-term welfare recipients, and had no earnings in the prior year. The "less disadvantaged" category contains those who did not meet these criteria.

V. Attendance Patterns in Basic Education Activities

Another important factor influencing the investment made in basic education by GAIN registrants was their attendance patterns in school – defined here as the amount of education participants actually received on a weekly basis (on average). Regular attendance in basic education activities is necessary if students are to learn the material and progress through the program at a reasonable rate. In addition, GAIN's participation mandate required registrants to attend their assigned activities on a continuous basis until they left the GAIN program (or were deferred from participating) or be subject to financial sanctioning. As previous MDRC research has indicated, however, promoting regular attendance in GAIN basic education activities was challenging. GAIN students may have had unresolved problems or negative experiences in school that hindered their attendance.[41] This is different from the schools' experience with traditional basic education students, who usually volunteer for education services and thus may be likely to attend classes more consistently on their own initiative.

Because the counties in this study recognized that consistent attendance patterns were unlikely to be achieved without intervention, they invested resources to monitor attendance and follow up on attendance problems. The rest of this section examines the procedures counties and schools used to monitor attendance and also presents average weekly attendance data for GAIN registrants.

A. Attendance Monitoring Procedures

As noted above, GAIN's mandatory participation requirement necessitated the development of procedures to track the attendance and progress of GAIN participants in adult education. Schools were asked to maintain this information on GAIN students and to regularly communicate it to the welfare department. Four of the counties (Los Angeles, Riverside, San Diego, and Tulare) set up relatively structured and timely procedures for monitoring attendance and progress. In these counties, attendance data were usually collected by designated staff at the school on a daily basis and communicated to GAIN program staff at least twice per week.

While these four counties had structured attendance monitoring procedures, two counties were particularly notable in the efforts they made to resolve attendance problems. Some San Diego case managers had caseloads that consisted only of individuals assigned to basic education activities. These case managers spent two or three days per week at schools to assist clients and resolve attendance problems. In addition, school staff at the Learning Centers in San Diego directly contacted students who were not present for class – usually on the day they were absent. In Tulare, the GAIN program employed transition counselors, whose primary responsibility was to promote and achieve good attendance patterns for GAIN students. Tulare also had a uniform attendance and performance monitoring system for all schools, and some schools in the county called clients directly each day they did not attend, to see if they could assist in removing barriers or resolving problems.

---

[41] See Riccio et al., 1989, and Pauly, Long, and Martinson, 1992.

Riverside used a different approach for registrants with poor attendance during the period of this study. Registrants who were not attending regularly were sometimes "transferred" from a basic education activity to a job search activity. Thus, registrants with poor attendance were not strongly encouraged to improve their attendance; instead, they were urged to find jobs if they did not want to be in school. While this was not a standardized policy, it occurred much more extensively than in the other counties and was consistent with the county's overall emphasis on quick employment.

Attendance monitoring appeared weaker in Alameda and Butte, where schools sent attendance information to GAIN staff on a less frequent basis (monthly). As discussed in previous MDRC reports, results from MDRC's staff survey also confirm these findings. Eight questions in the staff survey were used to measure the timeliness of the monitoring information staff in each county obtained. The scale included several questions concerning the monitoring of basic education participants.[42] The results are presented in Figure 3.1c. (The greater the proportion of staff who answered "high" on this scale, the more timely was the monitoring information they received.) Riverside, San Diego, and Tulare had the highest scores – with 57 percent or more of the staff giving this rating – while Alameda and Butte were distinctly lower (with fewer than 20 percent giving the same response).

B. Average Weekly Hours of Actual Attendance

This subsection reports on the average weekly hours of attendance in basic education classes by GAIN registrants. It presents the hours they actually spent in the classroom according to school records, *not* the self-reported scheduled hours discussed above. Again, these data provide essential information on registrants' investment in basic education.

The data were collected from school attendance records in all the counties except Alameda and Los Angeles. (See Chapter 2 for a further description of how these data were collected.) In Butte, data for ESL students were not available. In addition, no distinction was made between ABE and GED components in Butte's school records. Therefore, statistics for these two components were combined and are presented as part of the GED component. Sample sizes for AFDC-Us were not large enough to make possible reliable county-specific results. Thus, results for this group were pooled, with all counties being weighted equally.

---

[42] See Riccio and Friedlander, 1992, for the survey questions used to construct the scale.

The figures reported here represent the average hours attended per week over the entire time participants were enrolled in basic education activities during the 12-month follow-up period, including some one- to two-week periods when classes were not in session because of breaks or holidays.[43] These data cover a period prior to the time the JOBS program instituted its participation requirements and "20-hour rule." As shown in Table 3.5, AFDC-FG registrants reported that their classes were *scheduled* for roughly 16 to 18 hours per week. Classes in Los Angeles and San Diego were scheduled for somewhat longer hours – about 24 per week.

On average, across all types of basic education activities, participants attended their basic education classes roughly 10 hours per week (see Table 3.8). San Diego had the highest number of hours attended per week for participants in each type of basic education activity – averaging 16 hours per week – probably owing to a combination of its greater number of scheduled hours and close monitoring procedures. Weekly hours of attendance were lowest in Butte – 5 hours per week. This is most likely because of its relatively weak monitoring system. Tulare and Riverside had similar average attendance levels – approximately 10 hours per week.

As also shown in Table 3.8, weekly hours attended were somewhat shorter for GED activities. In most counties, a majority of participants attended class fewer than 10 hours per week. However, in San Diego, more than 50 percent of the participants attended for more than 15 hours per week, on average. The county that came closest to this mark was Riverside, where 14 percent of the participants attended for more than 15 hours per week.[44]

Table 3.9 shows the average weekly hours of attendance in ABE and GED for the subgroups discussed above.[45] Before examining weekly hours, it is important to look at the distribution of ABE and GED participants across subgroups. It is particularly interesting but not surprising to note that the bulk of GED participation was among the higher literacy subgroups. Sample members who scored below 215 on both CASAS tests accounted for less than 5 percent of the GED participants. Sample members who did not complete more than the eighth grade accounted for only about one-tenth of all GED

---

[43] Longer breaks, such as summer vacation, were not counted in calculating the average weekly hours of attendance. Because short breaks were included in the average weekly hours of attendance, they are slightly underestimated.

[44] The previously cited study of a nationally representative sample of adult education students (Development Associates, 1993) found that GED students attended class 4.2 hours per week, ABE students attended 4.4 hours, and ESL students attended 5.9 hours. GAIN's attendance was generally higher, as documented in this chapter.

[45] Sample sizes for ESL participants were too small for presenting subgroup results.

TABLE 3.8

FOR BASIC EDUCATION PARTICIPANTS: AVERAGE WEEKLY HOURS OF ACTUAL ATTENDANCE IN BASIC EDUCATION ACTIVITIES WITHIN 12 MONTHS OF GAIN ORIENTATION, BY AFDC STATUS AND COUNTY

	AFDC-FGs					AFDC-Us
Measure	Butte (a)	Riverside	San Diego	Tulare	All Counties	All Counties
Average weekly hours in						
GED	5.2	7.9	14.3	9.3	9.2 ***	9.4
ABE	n/a	11.8	16.7	10.4	13.0 ***	15.2
ESL	n/a	9.8	16.8	13.9	13.5 ***	12.7
All basic education activities	5.2	9.8	15.6	10.4	10.2 ***	10.8
Percentage distribution of weekly hours in all basic education activities						
Less than 5 hours	54.2	23.8	7.7	7.8	23.4 ***	25.4
5-9 hours	31.3	35.7	17.5	44.9	32.3 ***	24.6
10-14 hours	12.5	26.2	23.3	35.3	24.3 ***	26.7
15-19 hours	0.0	7.1	27.3	7.2	10.4 ***	13.5
20 hours or more	2.1	7.1	24.2	4.8	9.5 ***	9.8
Sample size (b)						
GED	48	34	249	84	415	82
ABE	n/a	33	356	74	463	120
ESL	n/a	18	108	26	152	77
Total	48	84	662	167	961	261

SOURCE: MDRC calculations using data from provider attendance records.

NOTES: Provider attendance data were not collected in Alameda and Los Angeles counties.

This table contains estimates for a subsample of experimentals who participated in a basic education activity arranged through the GAIN program.

The "all county" estimate is the average of the county estimates, with each county weighted equally.

Distributions may not add to 100.0 percent because of rounding.

For AFDC-FGs, a chi-square test or an F test was applied to differences among counties. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) In Butte, data were not available for ESL participants, and the providers did not distinguish between ABE and GED activities; all participants in this county are included in the GED category.

(b) Sample sizes for GED, ABE, and ESL do not sum to the total sample size because some participants attended more than one education component.

TABLE 3.9

FOR AFDC-FG ABE/GED PARTICIPANTS: AVERAGE WEEKLY HOURS OF ACTUAL ATTENDANCE IN ABE AND GED, BY SELECTED CHARACTERISTICS AT GAIN ORIENTATION

	ABE Participants		GED Participants	
Characteristic and Subgroup	Percent of Sample	Average Weekly Hours	Percent of Sample	Average Weekly Hours
Score on CASAS reading test				
225 or above	43.0	12.9	78.3	9.1
215-224	30.7	12.6	15.7	9.5
214 or below	19.7	14.2	3.1	12.4
Score on CASAS math test				
215 or above	7.1	12.5	64.6	9.2
214 or below	86.2	13.1	32.5	9.6
Score on both CASAS tests				
215 or above on both	6.0	12.0	64.3	9.1
214 or below on one	68.7	12.9	29.9	9.9
214 or below on both	18.6	14.0	2.9	12.0
High school diploma or GED				
Yes	32.4	13.1	7.7	10.2
No	67.6	12.9	92.3	9.2
Highest grade completed				
11 or above	52.1	12.2	48.9	9.1
9 or 10	28.9	13.4	40.7	8.8
8 or below	19.0	13.3	10.4	10.8
Aid status (a)				
Applicant	24.8	15.2 ***	31.6	8.0 *
Short-term recipient	26.1	14.7	23.6	9.5
Long-term recipient	49.0	11.8	44.8	9.6
Summary measure of disadvantagedness (b)				
Less disadvantaged	73.0	13.8 ***	70.6	9.3
Most disadvantaged	26.8	11.6	29.2	9.0
Employed in prior year				
Yes	31.3	13.0	40.7	8.8
No	68.5	12.9	59.0	9.4
Age				
24 or under	7.6	11.9 ***	7.2	9.2 **
25-34	53.3	12.2	61.4	8.6
35-44	29.4	12.9	24.6	10.0
45 or over	9.7	17.5	6.7	12.1
Sample size	463		415	

SOURCE: MDRC calculations using data from GAIN intake forms and provider attendance records.

NOTES: Sample characteristics were recorded on the intake form by GAIN staff at orientation and are based on answers from GAIN registrants.

This table contains estimates for a subsample of experimentals who participated in a basic education activity arranged through the GAIN program.

Provider attendance data were not collected in Alameda and Los Angeles counties. In Butte, the providers did not distinguish between ABE and GED activities; all participants in this county are included in the GED category.

The estimates presented are the average of the county estimates, with each county weighted equally.

(continued)

TABLE 3.9 (continued)

Distributions may not add to 100.0 percent because of rounding. Also, a small proportion of individuals were missing CASAS test scores and are not included in the subgroups based on this variable. Finally, two cases lacked the identifying information necessary to calculate certain measures related to prior earnings. These cases are not included in the analysis of subgroups based on level of disadvantage and employment in the prior year.

An F test was applied to differences among subgroups within a characteristic. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) Applicants are registrants who were applying for AFDC at the time of referral to GAIN orientation; they include reapplicants who may have had prior AFDC receipt. Short−term recipients had received AFDC for two years or less; long−term recipients had received AFDC for more than two years (the AFDC receipt may not have been continuous).

(b) The "most disadvantaged" individuals are those who did not have a high school diploma or GED, were long−term welfare recipients, and had no earnings in the prior year. The "less disadvantaged" category contains those who did not meet these criteria.

participants. Both of these subgroups accounted for markedly greater proportions of ABE participants. The pattern is just the opposite for the highest literacy group. Those who scored 215 or more on both CASAS tests accounted for a large proportion of GED participants and only a small share of ABE participants. These patterns will help explain the impacts of GAIN on GED receipt, presented in Chapter 5.

Table 3.9 is also useful for assessing which types of clients participated most intensively and at which groups efforts to improve attendance could usefully be directed. For both GED and ABE activities, younger registrants attended classes somewhat less consistently than did older registrants. Long-term recipients and the "most disadvantaged" attended ABE activities for slightly fewer hours than did applicants and short-term recipients and less disadvantaged registrants. For GED activities, there was not a consistent pattern of differences, although those with higher CASAS scores attended fewer hours per week then did those with lower scores. Overall, while some of the differences within subgroups were statistically significant, they were also small, indicating that there were not major differences in the number of hours participants in these subgroups attended class each week. In contrast to total scheduled hours in basic education activities, actual weekly attendance did not increase with the level of disadvantagedness.

In San Diego, individual-level *scheduled* hours were available in addition to actual hours of participation. This made it possible to calculate an attendance rate (i.e., the proportion of scheduled hours participants actually attended). Table 3.10 illustrates the average scheduled hours of basic education activities each month, the average number of hours participants actually attended each month, and the attendance rate for each activity. Overall, basic education participants in San Diego attended approximately 63 percent of the time. Attendance rates were highest for ESL, with participants having attended almost three-quarters of their scheduled hours. For AFDC-FG registrants, the rates were somewhat lower for ABE and GED, ranging from 58 to 65 percent. The differences in attendance rates for AFDC-FG and AFDC-U basic education participants in San Diego were small.

In other counties, data on individual-level scheduled hours were not collected from school records. Thus, a precise attendance rate cannot be calculated. However, in three counties where attendance data were collected, a "proxy" for the attendance rate can be calculated using provider data on actual weekly hours of attendance and GAIN survey data on weekly scheduled hours in basic education activities.[46] It should be noted that these estimates are not exact because they combined data drawn for different subsamples and were derived from different data sources. They do, however, provide a useful

---

[46] Attendance data were not collected in Alameda or Los Angeles, and survey data were not collected in Butte. Therefore, these three counties were not included in this analysis.

TABLE 3.10

FOR BASIC EDUCATION PARTICIPANTS IN SAN DIEGO: ATTENDANCE RATES IN BASIC EDUCATION ACTIVITIES, BY AFDC STATUS

Activity and Measure	AFDC-FGs	AFDC-Us
GED		
Average hours attended per week	13.6	15.0
Average scheduled hours per week	23.4	23.3
Attendance rate (%)	58.4	64.2
ABE		
Average hours attended per week	15.6	16.9
Average scheduled hours per week	24.0	25.0
Attendance rate (%)	65.0	67.4
ESL		
Average hours attended per week	16.3	17.0
Average scheduled hours per week	22.5	22.7
Attendance rate (%)	72.2	74.9
All basic education activities		
Average hours attended per week	14.7	16.4
Average scheduled hours per week	23.5	25.3
Attendance rate (%)	62.7	64.8
Sample size (a)		
GED	209	57
ABE	287	99
ESL	92	49
Total	547	191

SOURCE: MDRC calculations using data from San Diego's automated provider attendance records.

NOTES: This table contains estimates for a subsample of experimentals who participated in a basic education activity arranged through the GAIN program.

This table does not include 115 individuals in San Diego for whom attendance data were collected manually.

(a) Sample sizes for GED, ABE, and ESL do not sum to the total sample size because some participants attended more than one education component.

benchmark for assessing hours of attendance in relation to total scheduled hours.

The first column of Table 3.11 shows the average weekly scheduled hours in basic education (GED, ABE, and ESL) based on responses to the GAIN survey (these data were presented earlier in this chapter; see Appendix Table C.5). The second column presents the average weekly hours actually attended based on provider records data (see Table 3.8). The third column shows the proportion of scheduled hours actually attended (by dividing actual hours of attendance by total scheduled hours).

As shown, these attendance rates varied from 55 percent in Riverside to 65 percent in San Diego. The estimated attendance rate in San Diego was very similar to the rate calculated from San Diego's automated attendance data (see Table 3.10), suggesting that these estimates are useful benchmarks for determining the extent to which participants attend their classes. Interestingly, the estimated attendance rates were somewhat higher for San Diego, where monitoring procedures were more intensive and where greater service adaptations were made.

Overall, these estimates indicate that GAIN participants attended their classes roughly 60 percent of the time, with a rate of 65 percent being attained by a program with relatively intensive monitoring procedures. This indicates that higher attendance rates may be difficult to obtain with this population. Program operators and administrators of mandatory basic education programs for welfare recipients should be aware that attendance rates in this range are likely, or could even be lower if structured monitoring procedures are not utilized. Given this result, it is also important to organize instruction so that it is still beneficial under these circumstances (i.e., so that students who miss some classes do not fall too far behind).

These data also confirm that the average number of total scheduled hours of basic education services, presented earlier in this chapter, is an upper boundary of the amount of education received. Based on an attendance rate of 60 percent, total hours of basic education received (across all counties and all basic education activities) would average 403 hours, rather than the average total scheduled hours of 672 (as reported in Appendix Table C.5).

VI. Completing the Basic Education Component

This chapter has shown that the vast majority of participants stay in basic education activities for less than one year, and that many leave within six months. A key question to be answered is whether participants are completing their activities within this time frame, and what happens to participants after they leave basic education programs. These issues are discussed in this section.

TABLE 3.11

FOR AFDC–FG BASIC EDUCATION PARTICIPANTS: ESTIMATED ATTENDANCE RATES IN BASIC EDUCATION, BY COUNTY

County	Average Weekly Scheduled Hours (a)	Average Weekly Hours Attended (b)	Estimated Attendance Rate (%) (c)
Riverside	17.7	9.8	55.4
San Diego	24.1	15.6	64.7
Tulare	17.4	10.4	59.8

SOURCE: MDRC calculations using data from the GAIN registrant survey and provider attendance records.

NOTES: Butte County was not included in the GAIN survey and could not be included in this analysis.

Provider attendance data were not collected in Alameda and Los Angeles counties and could not be included in this analysis.

This table contains estimates for sample members from the experimental group.

Basic education includes GED, ABE, and ESL.

(a) Based on survey responses.

(b) Based on provider attendance records.

(c) This estimate is calculated by dividing the second column by the first column.

A. State and County Policies on Completion

At the time this study was conducted, the state provided only broad guidelines for determining when participants had completed education in GAIN. Only in the GED programs, where the program was completed when the registrant passed the GED test, were the completion standards specific.[47] No similar guidelines existed for ABE and ESL courses.

During the data collection period, the GAIN regulations stated that service providers could use their existing post-testing instruments and competency standards to judge a participant's successful completion. These policies were not, however, interpreted consistently at the local level. Thus, the criteria for judging progress and completion in ABE and ESL not only varied from county to county but also sometimes from school to school within counties. Subsequent to the period covered in this report, CDSS and CASAS jointly addressed the problem of standardizing ABE completion criteria by developing an exit test for ABE students who have completed their coursework. This exit test is now in place. In addition, counties varied in whether registrants who completed ABE went on to GED or were referred back to GAIN for job search services (the latter practice was consistent with the GAIN regulations).

Los Angeles and San Diego were the only counties with standardized exit procedures for ABE and ESL, while Riverside had such standards for ABE.[48] San Diego also had rules requiring registrants who completed ABE to enroll in a job search activity rather than attend a GED program. Although not a uniform policy, most of the other counties generally urged registrants to attend a GED program after completing ABE, an emphasis that was particularly strong in Tulare. In Riverside, a registrant had to show a strong interest in pursuing a GED program for it to be assigned after completion of an ABE course.

B. Completion Rates

This discussion considers how many registrants completed their basic education activities within a *12-month* follow-up period. Although the follow-up period for this information is shorter than the two- to three-year period for the length of stay data, the data do reveal some interesting patterns. The analysis examines only registrants who *participated in an education activity* and is based on data from school records in four sites: Butte, Riverside, San Diego, and Tulare. (See Chapter 2 for a description of how these data were collected.) These data were not available in Alameda or Los Angeles. For Butte, data for ESL students were not available. In addition, no distinction was made between ABE and GED activities in Butte's school records. Therefore, statistics for these two components were combined and are presented under GED.[49]

---

[47] Few of the basic education programs serving GAIN students were geared toward attainment of a high school diploma.

[48] Los Angeles and San Diego used exit tests developed by CASAS; students who scored 215 or above on the exit test "completed" the activity. Riverside required a score of 8.9 on the TABE test.

Basic education participants were defined as having "completed" the activity when, according to their county's or provider's standards, they had reached the appropriate skills level. Participants were considered to have "exited" basic education when they left without completing the activity for reasons such as employment. Table 3.12 summarizes the results on completion patterns for the four counties within a one-year follow-up period.

Overall, 21 percent of the AFDC-FG GED and ABE participants completed their program within the one-year follow-up period. The completion rate for ESL activities was very low: 4 percent for the AFDC-FGs. These rates were similar for AFDC-U participants.

There were significant differences between counties in completion rates, however. San Diego had the highest completion rates, with close to 40 percent of the participants completing their ABE or GED activities. As noted above, San Diego had standardized exit criteria for ABE in schools serving GAIN registrants. These concrete and uniform standards may have been a factor in achieving the county's completion rate, since participants were working toward a well-defined goal. Butte had the lowest completion rate for GED. This is partly attributable to the fact that, because there was a waiting list for being assigned a case manager, many registrants started education activities later in this county and thus were still participating in them at the end of the one-year follow-up period.[50]

Consistent with the county practices described above, participants in Tulare who completed an ABE activity were much more likely to go on to a GED course than were participants in other counties. In Tulare, 35 percent of those who completed ABE went on to a GED program, while fewer than one percent did so in Riverside and San Diego (not shown in the table).

Two other important findings are presented in Table 3.12. First, a large proportion of participants "exited" an activity without completing it. As noted previously in this chapter, this is primarily because participants were temporarily deferred or deregistered from GAIN for reasons such as employment or health problems – statuses consistent with the GAIN legislation (see Figure 3.2). In Riverside, more than 70 percent of the basic education participants exited without completing the program requirements.

---

[49] This analysis relies on data collected for the provider attendance sample. The results presented here are slightly different from those presented in Figure 3.2 because that figure is based on results for a different sample (the participant flow sample).

[50] In addition, because the county providers' records did not distinguish between ABE and GED students, this sample may have included individuals whose skills levels were lower than those of the GED participants in other counties.

TABLE 3.12

FOR BASIC EDUCATION PARTICIPANTS: COMPLETION STATUS WITHIN 12 MONTHS OF GAIN ORIENTATION, BY AFDC STATUS AND COUNTY

Activity and Status	AFDC-FGs Butte (a) (%)	Riverside (%)	San Diego (%)	Tulare (%)	All Counties (%)	AFDC-Us All Counties (%)
GED						
Completed (b)	4.2	17.6	38.6	22.6	20.7 ***	21.6
Exited (c)	20.8	70.6	49.4	41.7	45.6 ***	48.4
Still active (d)	52.1	5.9	12.0	35.7	26.4 ***	30.0
Status unknown	22.9	5.9	0.0	0.0	7.2 ***	0.0
ABE						
Completed (b)	n/a	3.0	39.3	20.3	20.9 ***	20.7
Exited (c)	n/a	75.8	51.7	58.1	61.9 *	64.1
Still active (d)	n/a	15.2	9.0	21.6	15.3 **	15.2
Status unknown	n/a	6.1	0.0	0.0	2.0 ***	0.0
ESL						
Completed (b)	n/a	0.0	4.6	7.7	4.1	7.5
Exited (c)	n/a	66.7	53.7	53.8	58.1	48.6
Still active (d)	n/a	33.3	41.7	38.5	37.8	41.5
Status unknown	n/a	0.0	0.0	0.0	0.0	2.4
All basic education activities						
Completed (b)	4.2	8.3	36.3	15.0	15.9 ***	16.7
Exited (c)	20.8	71.4	47.7	51.5	47.9 ***	42.9
Still active (d)	52.1	15.5	16.0	33.5	29.3 ***	39.4
Status unknown	22.9	4.8	0.0	0.0	6.9 ***	1.1
Sample size (e)						
GED	48	34	249	84	415	82
ABE	n/a	33	356	74	463	120
ESL	n/a	18	108	26	152	77
Total	48	84	662	167	961	261

SOURCE: MDRC calculations using data from provider attendance records.

NOTES: Provider attendance data were not collected in Alameda and Los Angeles counties.

This table contains estimates for a subsample of experimentals who participated in a basic education activity arranged through the GAIN program.

The "all county" estimate is the average of the county estimates, with each county weighted equally.

Distributions may not add to 100.0 percent because of rounding.

For AFDC-FGs, a chi-square test was applied to differences among counties. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) In Butte, data were not available for ESL participants, and the providers did not distinguish between ABE and GED activities; all participants in this county are included in the GED category.

(b) "Completed" means that the participant reached the appropriate skill level according to county or provider standards.

(c) "Exited" means that the participant left without completing the component because of employment, a transfer to a new component, or other reasons.

(d) "Still active" means that the participant was enrolled in the activity at the end of the follow-up period.

(e) Sample sizes for GED, ABE, and ESL do not sum to the total sample size because some participants attended more than one education component.

In the other counties (except Butte), roughly 50 percent left their basic education activity without completing it. Except in Riverside, a higher rate of retention was achieved in GED activities than in ABE and ESL activities, which may be explained by the fact that participants and/or the county programs viewed GED attainment as being a more tangible and valued outcome. Second, a substantial portion of participants (averaging 29 percent for AFDC-FGs) were participating in their basic education activity at the end of the one-year follow-up period, so these completion and exit rates would have changed somewhat as participants continued to complete or leave their basic education activities.

For the purpose of understanding how long it takes individuals to complete their activities, and how long participants attend before leaving their program, Table 3.13 examines the length of stay and *actual* hours of attendance for those who completed and exited their activities at the end of the 12-month follow-up period. Across all counties, those who completed GED activities did so within 3.5 months and after receiving roughly 149 hours of services. However, those who exited their activities did so in a shorter time, and generally attended their classes fewer hours per week, than did those who completed their activities. Since a substantial proportion of individuals were participating in activities at the end of the follow-up period, these estimates, too, should increase as those still in the activities complete or leave them.

Figure 3.4 examines the month-by-month "status" of basic education participants over the 12-month follow-up period. Specifically, the figure illustrates the activity patterns of these participants over time as well as their status when they were not in basic education activities. The registrants included in this analysis were those who participated in a basic education activity within the 12-month follow-up period. For each month, sample members were counted in the status in which they spent most of their time that month. There are several things to note in this figure. First, the proportion of individuals in basic education remained relatively constant over time. One reason is that people started – and left – their basic education activities throughout the follow-up period. In other words, there was an ebb and flow into and out of basic education. Second, when basic education participants were not in classes, most of them were still in GAIN, but not actively participating, because they were deferred, involved in conciliation procedures, or waiting for an activity to start. The largest proportion of participants were in this status each month. Finally, more than 60 percent of the participants remained in the GAIN program at the end of the 12-month follow-up period. Roughly one-third of the participants deregistered from GAIN within the 12 months, and about one-half of those who were deregistered from GAIN were deregistered because they left AFDC.

TABLE 3.13

FOR AFDC–FG BASIC EDUCATION PARTICIPANTS: AVERAGE LENGTH OF STAY AND TOTAL HOURS OF PARTICIPATION IN BASIC EDUCATION ACTIVITIES WITHIN 12 MONTHS OF GAIN ORIENTATION, BY COMPLETION STATUS AND COUNTY

	Butte (a)			Riverside			San Diego			Tulare			All Counties		
Status and Activity	Avg. Months	Avg. Total Hours	Avg. Weekly Hours	Avg. Months	Avg. Total Hours	Avg. Weekly Hours	Avg. Months	Avg. Total Hours	Avg. Weekly Hours	Avg. Months	Avg. Total Hours	Avg. Weekly Hours	Avg. Months	Avg. Total Hours	Avg. Weekly Hours
Completed (b)															
GED	4.2	96.0	7.9	3.6	154.2	10.6	3.0	205.5	17.4	3.2	141.7	10.2	3.5	149.3	11.5
ABE	n/a	n/a	n/a	0.6	32.0	13.2	2.6	200.1	20.0	5.7	273.7	11.3	2.9	168.6	14.8
ESL (c)	n/a	n/a	n/a	n/a	n/a	n/a	4.0	325.6	19.3	5.3	378.0	15.4	4.7	351.8	17.4
All activities	4.2	96.0	7.9	3.2	136.7	11.0	2.9	208.8	18.9	4.1	200.1	10.7	3.6	160.4	12.1
Exited (d)															
GED	1.4	37.4	8.2	2.7	69.8	7.3	1.8	94.3	12.0	2.8	95.4	9.5	2.2	74.2	9.3
ABE	n/a	n/a	n/a	3.3	131.8	12.1	1.4	75.5	14.6	3.0	118.3	10.9	2.6	108.6	12.5
ESL	n/a	n/a	n/a	4.5	155.4	9.5	2.5	178.1	16.6	3.3	168.7	13.8	3.5	167.4	13.3
All activities	1.4	37.4	8.2	3.4	114.0	9.8	2.0	110.4	13.1	2.9	116.8	10.7	2.4	94.7	10.5
Sample size (e)															
GED	48			34			249			84			415		
ABE	0			33			356			74			463		
ESL	0			18			108			26			152		
Total	48			84			662			167			961		

SOURCE: MDRC calculations using data from provider attendance records.

NOTES: Provider attendance data were not collected in Alameda and Los Angeles counties.

This table contains estimates for a subsample of experimentals who participated in a basic education activity arranged through the GAIN program.

The "all county" estimate is the average of the county estimates, with each county weighted equally.

The county sample size for each row is the relevant sample size in the bottom panel of this table multiplied by the percent who completed or exited the activity (see Table 3.12).

(a) In Butte, data were not available for ESL participants, and the providers did not distinguish between ABE and GED activities; all participants in this county are included in the GED category.

(b) "Completed" means that the participant reached the appropriate skill level according to county or provider standards.

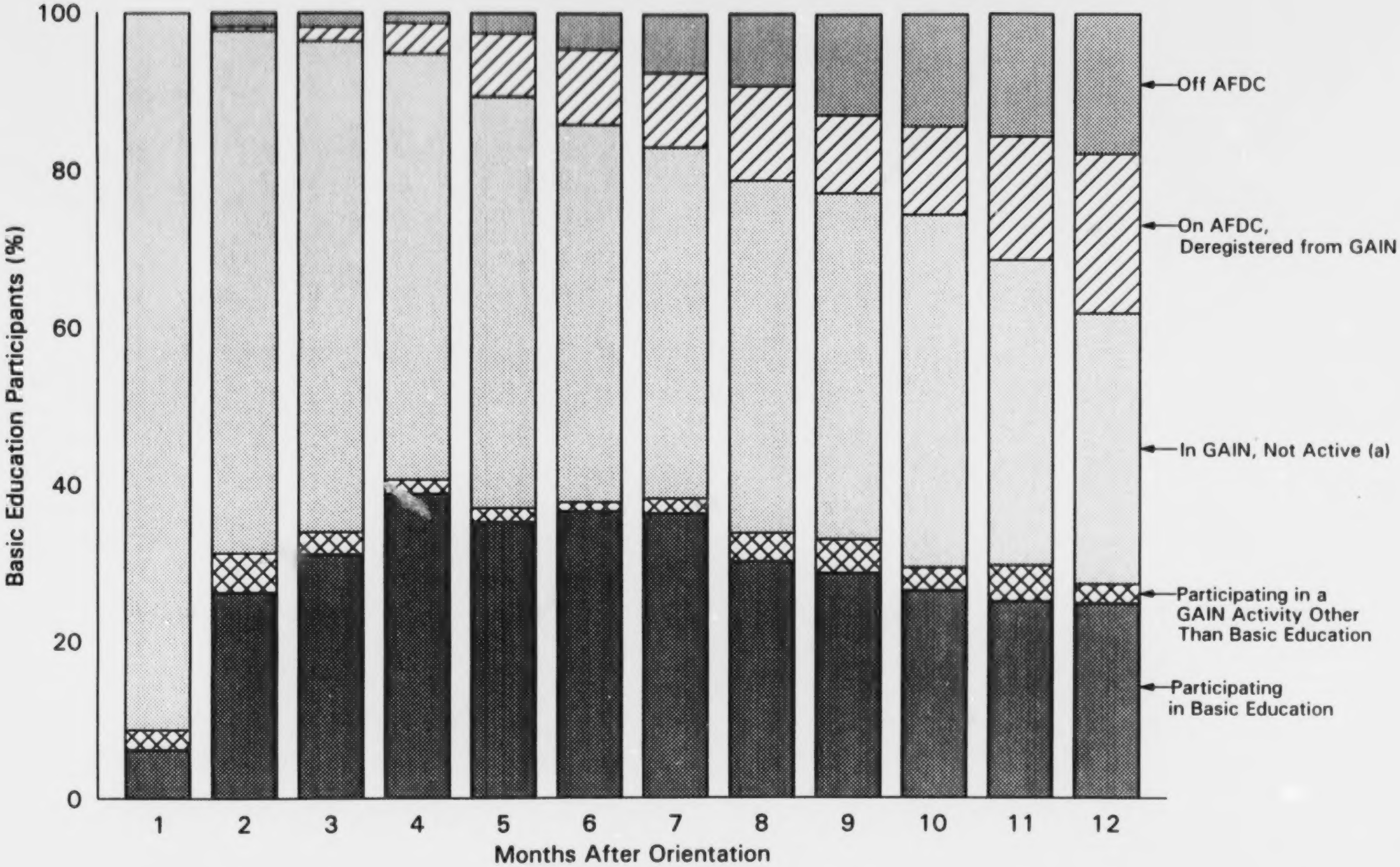
(c) No participants completed ESL in Riverside.

(d) "Exited" means that the participant left without completing the component because of employment, a transfer to a new component, or other reasons.

(e) Sample sizes for GED, ABE, and ESL do not sum to the total sample size because some participants attended more than one education component.

FIGURE 3.4

FOR BASIC EDUCATION PARTICIPANTS: MONTHLY STATUS WITHIN 12 MONTHS AFTER GAIN ORIENTATION



SOURCE: MDRC calculations using data from the participant flow sample and county AFDC records.

NOTES: This figure includes data for sample members from the experimental group in Butte, Riverside, San Diego, and Tulare.

(a) The reasons for being not active include deferral, involvement in noncompliance activities, and waiting for an activity to start or for a referral to an activity to be made.

136

135

VII. Summary

All six research counties were able to offer basic education services to GAIN students, primarily by relying on the existing services in the community and in some cases by expanding them. Typically, GAIN students were offered the standard basic education programs available to other adult education students in the community, and few changes were made to the services previously provided. In San Diego, a major effort was made to redesign the services to the specific needs of GAIN students by integrating academics and life skills, by developing an entirely new network of Learning Centers (i.e., classrooms) that included up-to-date computer-based learning labs, and by hiring a new teaching staff. Across all counties, however, the basic education services appeared to offer students an "opportunity to learn" in that services used established curricula and instructional methods and were held for a substantial number of hours per week.

A sizable portion (41 percent) of AFDC-FG registrants determined to need basic education actually participated in the activity. Almost all of the others were temporarily deferred or deregistered from GAIN for reasons such as employment or health problems, were referred to other activities such as job search, or were continuing in post-secondary education or vocational training activities they had begun prior to entering GAIN. Since these statuses are consistent with the GAIN legislation, substantially higher rates of participation in basic education would not have been feasible, especially in Alameda, Los Angeles, and Tulare.

Those who participated in basic education activities did so for a substantial period of time – averaging about one school year (8 months for ABE/GED and 10 months for ESL, for AFDC-FG participants) within a two- to three-year follow-up period. Overall, roughly 60 percent of the basic education participants left their basic education programs within 6 months, while 17 percent stayed more than one year.

There was notable variation by county. Length of stay in ABE/GED was shortest in Riverside and San Diego (5 months) and longest in Los Angeles (11 months). In Riverside, this appears to have reflected the county's philosophy of encouraging basic education participants who did not attend their classes consistently to seek employment rather than to continue in basic education. Length of stay in basic education activities was substantial in Alameda, Los Angeles, and Tulare. This was consistent with their emphasis on education activities and was also due, in part, to the somewhat more disadvantaged GAIN caseload in these counties, particularly in Alameda and Los Angeles. (More disadvantaged recipients tended to remain on welfare longer during the follow-up period.) Participants who had lower levels of literacy and longer welfare histories when they entered GAIN attended their basic education programs longer than did the more advantaged groups – those with higher literacy levels and shorter histories of welfare receipt.

Across the counties, participants were in the classroom for 10 hours per week on average. Weekly attendance was higher in San Diego, in part because classes were scheduled for more hours per week. Also, because the San Diego participants had more scheduled hours per week, they were enrolled for about as many *total* hours of basic education as were participants who averaged longer stays in basic education. Across the three counties for which data were available, basic education participants were in the classroom roughly 60 percent of their scheduled hours. San Diego, which had intensive monitoring procedures, achieved the highest rate of the three. In a mandatory basic education program for welfare recipients, such monitoring procedures may be required to achieve even these moderate rates of attendance. It is also important to organize instruction so that it is beneficial even when attendance is inconsistent – i.e., so that students who miss some classes are still able to profit from the program's instruction.

Within a 12-month follow-up period, roughly 16 percent of basic education participants officially completed their basic education activities. Over the same time period, almost one-half left without completing them, primarily because they were deferred or deregistered from the GAIN program for reasons such as employment or health problems (statuses consistent with the GAIN legislation). The remainder were participating in the activity at the end of the follow-up period. Completion rates were highest in San Diego, where standardized exit criteria were used, and the rates for exiting were highest in Riverside. Those who did complete their basic education activities did so relatively quickly, usually within a four-month period.

CHAPTER 4

GAIN'S IMPACTS ON PARTICIPATION IN BASIC EDUCATION AND OTHER SERVICES

For the group of registrants determined to need basic education, the short-term goals of the GAIN program included increasing participation in basic education, job search, and other services in order to enhance their educational achievement and attainment, their employability, and their long-term earnings. Chapter 3 described the GAIN treatment by presenting the experimental group's participation patterns in basic education activities. It showed that a substantial proportion of experimentals participated in such activities and that some did so for relatively long periods. As will become evident below, however, some welfare recipients participated in education and training programs on their own initiative, without help from GAIN. This chapter describes what GAIN achieved in terms of participation in these services above and beyond what individuals would have done in the absence of the program.[1]

This and the succeeding chapter rest on the random assignment research design described in Chapter 2 to estimate the difference the GAIN program made for those who were mandated to participate. To understand these differences (called program "impacts" or program "effects"), it is necessary to answer two basic questions. First, on average, what happened to those who were offered the GAIN program (i.e., the experimental group)? Second, on average, what would have happened to them had they not been offered the GAIN program (a condition represented by the experience of the control group)? The average impact of the program is the difference between the two groups in the many outcomes of interest.

Comparing the participation patterns of experimentals to those of controls yields an estimate of the *net* effect of the GAIN program on participation in basic education and other activities. Understanding this net effect, and how it differed among the research counties and among different groups of welfare recipients, is important for understanding and interpreting GAIN's impacts on educational achievement and attainment (presented in Chapter 5).

This chapter presents the findings on the impacts of GAIN on the participation levels, length of stay, and total scheduled hours in basic education and in other employment-related activities. The measures include activities that were arranged through the GAIN program (for experimentals only) as well as those that sample members participated in on their own initiative. These measures are different from those discussed in Chapter 3 in that results for both experimentals and controls – and the difference between them – are presented. This chapter relies on data from a survey of GAIN registrants, which, as previously discussed, was administered approximately two to three years after random assignment. The survey was conducted in all of the research counties except Butte: Alameda, Los Angeles, Riverside, San Diego, and Tulare. The survey was conducted in these five counties for AFDC-FG registrants and, in all these counties except Alameda, for AFDC-U registrants. Because of small sample sizes, the results for AFDC-U registrants are presented only as an average across counties, with each county weighted equally.

---

[1] In the absence of the GAIN program, individuals who participate in education and training programs on their own would not have access to the support services (i.e., child care and transportation) provided by the program.

As noted in Chapters 2 and 3, the follow-up period for the survey varied somewhat among the five counties (see Appendix Table C.1). However, the findings do not appear to have been sensitive to the county variation in the follow-up period. Selected results using a uniform follow-up period of 24 months are presented in Appendix D.

I. A Comparison of Participation Rates Based on Program Tracking Data and Survey Data

It is useful to begin this discussion with a comparison of the two sources of information available for estimating participation rates: program tracking and survey data. Participation rates computed from the GAIN registrant survey will, in general, differ from those presented in Chapter 3, which were computed from GAIN program tracking data. To some degree, the survey data will be more complete because participation questions were asked of both experimentals and controls, and participation not known to the GAIN program could be reported, as could participation after the 11-month follow-up period of the program tracking data. However, survey-reported participation depends on the respondent's memory. Activities that occurred long before the survey interview (e.g., during the period immediately following random assignment) may have been forgotten. Activities in which the respondent spent only a short time might also have been forgotten. In contrast, the program tracking data were recorded at the time of participation, and researchers systematically verified each recorded instance of participation.[2]

Table 4.1 compares program tracking and survey-reported participation rates for AFDC-FGs, for each county and for all counties pooled and weighted equally. AFDC-Us are not included.[3] The first row of the table gives the rate of participation in ABE or GED classes among experimentals, using the

---

[2] To be accepted as valid, participation recorded by GAIN staff had to be confirmed by a secondary source. For example, participation in ABE could be confirmed with an attendance report from a school.

[3] There were very few AFDC-Us for whom both program tracking and survey data were obtained. As discussed below, an overlap between the two data sources is needed for some of the adjustments in Table 4.1.

TABLE 4.1

FOR AFDC-FGs DETERMINED TO NEED BASIC EDUCATION: PARTICIPATION ESIMATES FROM PROGRAM TRACKING AND REGISTRANT SURVEY DATA, BY COUNTY

Outcome, Data Source, and Research Group	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties
Percent participating in ABE/GED						
Program tracking data						
Experimentals	52.7	30.1	25.2	27.7	45.9	36.3
Controls, imputed (a)	10.1	5.8	4.8	5.3	8.8	7.0
Difference	42.6	24.3	20.3	22.4	37.1	29.3
Program tracking, data adjusted (b)						
Experimentals	64.7	33.8	30.5	33.6	55.6	43.6
Controls, imputed (a)	12.4	6.5	5.9	6.5	10.7	8.4
Difference	52.3	27.3	24.6	27.2	44.9	35.3
Registrant survey data						
Experimentals	45.3	24.6	16.8	29.3	34.7	30.2
Controls	7.5	4.5	4.6	6.9	5.3	5.8
Difference	37.8	20.1	12.2	22.4	29.4	24.4
Percent participating in job search						
Program tracking data						
Experimentals	14.0	8.8	28.7	22.6	8.2	16.5
Controls, imputed (a)	2.2	1.4	4.5	3.5	1.3	2.6
Difference	11.8	7.4	24.2	19.1	6.9	13.9
Registrant survey data						
Experimentals	15.1	7.0	16.2	23.6	11.6	14.7
Controls	3.3	0.0	0.5	6.9	0.9	2.3
Difference	11.8	7.0	15.7	16.7	10.7	12.4
Sample sizes						
Program tracking data						
Experimentals	393	2,430	167	137	146	3,273
Controls	--	--	--	--	--	--
Registrant survey data						
Experimentals	225	187	388	191	216	1,207
Controls	241	202	194	189	225	1,051

SOURCE: MDRC calculations using data from the participant flow sample and the GAIN registrant survey.

NOTES: Rounding may cause slight discrepancies in calculating sums and differences.
Butte County was not included in the survey.

(a) In the participant flow sample (for whom program tracking data were collected), there are no controls. Therefore, rates of participation for controls are imputed by multiplying the experimental rate of participation based on program tracking data in each county by the all-county control/experimental ratio of participation rates for the survey.

(b) Experimental group participation rates from the program tracking data were multiplied by an adjustment factor calculated using members of the sample determined to need basic education who responded to the survey and for whom there were program tracking data as well. The factor was one plus the following ratio: the number of cases who reported participating in the survey but who were not listed as participants in the program tracking sample divided by the total number of cases who reported participating in the survey. Separate factors were calculated for Alameda and Los Angeles. Owing to small samples, a single factor was calculated for Riverside, San Diego, and Tulare combined.

program tracking data presented in Chapter 3.[4] Below this is an imputed control group participation rate for those activities. Since control group data were absent from the program tracking data set, survey information was used to make this imputation.[5] The experimental-control differences, shown in the next row, were determined mostly by the experimental participation rate; that is, the experimental-control differences were large or small across counties depending on whether the experimental group participation rate was high or low.

The second set of entries in the table adjusts the program tracking participation rates for basic education activity reported in the survey but not picked up by GAIN staff. This adjustment increased the program tracking participation rates among experimentals by about one-fifth;[6] that is, information from survey respondents suggests that total participation in education may have been one-fifth more than was known to GAIN, although the increases varied across counties. Control group participation rates increased slightly because of this adjustment.[7] The experimental-control differences increased slightly less than the experimental rates increased. Differences in the second set of entries are larger than those in the first set, but the two sets of estimates are very highly correlated; that is, the pattern of large and small differences across counties was virtually identical.

The third set of table entries shows education participation rates for experimentals and controls, calculated from the survey only. These rates were almost always less than the program tracking participation rates. In some cases, the difference was substantial, as in Tulare, where experimental survey respondents reported 11 percentage points less education participation than did the program tracking sample of experimentals (34.7 percent for the survey versus 45.9 percent for the program tracking sample). The experimental-control differences calculated from the survey were also less than the differences calculated from the program tracking data, whether adjusted or not. The patterns of experimental group levels and experimental-control differences were similar for program tracking and survey data, however. Across counties, the correlation coefficient between experimental group levels in the program tracking data and the survey data is +0.92 (out of a possible +1.00) for both unadjusted and adjusted estimates, and the correlations between experimental-control differences are +0.94. Riverside had the smallest experimental level and experimental-control difference in both data sets. Los Angeles and San Diego had levels and differences in the middle range in both data sets. Alameda and Tulare had the highest levels and differences. The main differences in patterns between program tracking data and survey data were that Riverside's rates on the survey were further below those of the other counties and that San Diego was ranked somewhat higher on the survey.[8]

---

[4] These rates measure participation in either ABE or GED and are therefore less than the sum of the separate participation rates for those activities.

[5] It was assumed that the ratio of the control group participation rate to the experimental group participation rate was the same for survey and program tracking data. This ratio was calculated from the survey data for all counties combined and weighted equally. The ratio was then multiplied by each program tracking experimental group participation rate to impute the program tracking control group participation rate, applying the same ratio across all counties.

[6] Experimental group participation rates from the program tracking data were multiplied by an adjustment factor calculated using members of the sample determined to need basic education who responded to the survey and for whom there were program tracking data as well. The factor was one plus the following ratio: the number of cases who reported participating in the survey but who were not listed as participants in the program tracking sample divided by the total number of cases who reported participating in the survey. Separate factors were calculated for Alameda and Los Angeles. Owing to small sample sizes, a single factor was calculated for Riverside, San Diego, and Tulare combined. Note that this adjustment procedure increased the program tracking participation rate for experimentals, even though the survey participation rate was less than the unadjusted program tracking participation rate. There are other ways to adjust for underreporting of participation in the survey, and these will be explored in MDRC's final report on GAIN.

[7] As before, control group participation rates were imputed as the adjusted experimental rate multiplied by the survey-reported control:experimental ratio. Separate ratios were used for Alameda and Los Angeles; the unweighted average of ratios was used for Riverside, San Diego, and Tulare.

The table next shows participation rates for job search. As before, control group participation rates for program tracking data were imputed from survey information.[9] Program tracking and survey data agreed quite closely. Experimental group participation rates and experimental-control differences were similar across the two data sets for most counties. Only Riverside showed marked differences: Rates and differences for Riverside were lower for the survey than for the program tracking data. It is likely that the program tracking data more accurately reflected true job search participation. That activity was short and often occurred near the date of random assignment. It may therefore have been forgotten by the time of the survey interview. It is unclear why Riverside should have been more prone to this kind of underreporting on the survey than the other counties.

In summary, certain issues have been explored in comparing program tracking and survey participation data. For education, the survey data appear to adequately represent participation patterns, while understating the absolute level of participation. Job search rates on the survey are probably close to actual patterns and levels. The one exception is Riverside, where both basic education and job search participation are likely to have been more severely underreported in the survey than elsewhere. These measurement issues should be kept in mind when interpreting the findings, especially those pertaining to Riverside. Finally, as discussed in the previous chapter, for length of stay among basic education participants, the survey had some advantages but may also have introduced biases leading to over- or underestimates.

---

[8] When a regression line was plotted for experimental participation rates from the survey against experimental participation rates from program tracking data, Riverside was below the line and San Diego was above it.

[9] The method of imputation was the same as for education participation.

II. GAIN's Impacts on the Receipt of Services

Table 4.2 displays the survey-reported percentage of experimentals and controls who participated in various types of activities, as well as the difference between the rates (which is the impact of GAIN). As illustrated in the first section of the table, the use of ABE/GED activities by the control group was relatively low in all the counties: Overall, only 6 percent of the AFDC-FG registrants participated in these services on their own during the two- to three-year follow-up period.[10] The experimental group's participation in ABE/GED varied from county to county, with a range of 17 to 45 percent. For all counties combined, GAIN produced a 24 percentage point impact on ABE/GED participation. This represented a large and statistically significant increase in the proportion of sample members who participated in basic education services. Compared to AFDC-FGs, somewhat fewer AFDC-U experimentals participated in ABE/GED, but the impacts were statistically significant.

Impacts on the receipt of ABE/GED services varied by county, ranging from 12 percentage points in Riverside to 38 percentage points in Alameda. The GAIN programs in Los Angeles, San Diego, and Tulare also had relatively substantial impacts on participation levels in ABE/GED, ranging from 20 to 30 percentage points. These results are consistent with Riverside's relatively high emphasis on employment, and the focus on basic education activities in the other counties (see Chapter 3). The impacts of GAIN on the receipt of ESL services were small (2 percentage points), although they were statistically significant in Alameda and San Diego.[11] Overall, considering participation levels in all basic education activities combined, as shown in the third section of Table 4.2, GAIN produced an impact ranging from 11 percentage points in Riverside to 40 percentage points in Alameda.

To understand the duration of the GAIN basic education treatment, it is also useful to examine GAIN's month-by-month impacts on participation levels in basic education activities over the follow-up period. Across all the counties, Figure 4.1 compares the proportion of experimentals and controls who participated in ABE/GED each month after random assignment, using a uniform follow-up period of two

---

[10] As previously noted, the survey did not distinguish between ABE and GED services.

[11] The use of ESL may be slightly underestimated owing to the sampling strategy for the survey, which included only Spanish and Vietnamese non-English speakers. Thus, individuals who spoke Laotian, Hmong, or Cantonese as well as other languages were not included. These individuals constituted a small proportion of the GAIN sample (under 5 percent). However, they are a group that would have been targeted for ESL services in GAIN.

TABLE 4.2

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's TWO- TO THREE-YEAR IMPACTS ON PARTICIPATION IN SELECTED ACTIVITIES, BY AFDC STATUS AND COUNTY

	AFDC-FGs						AFDC-Us (a)
Outcome and Research Group	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Ever participated in ABE/GED							
Experimentals (%)	45.3	24.6	16.8	29.3	34.7	30.2	20.3
Controls (%)	7.5	4.5	4.6	6.9	5.3	5.8	2.4
Difference	37.8 ***	20.1 ***	12.2 ***	22.4 ***	29.4 ***	24.4 ***	17.9 ***
Ever participated in ESL							
Experimentals (%)	2.7	9.6	2.6	8.4	2.8	5.2	9.8
Controls (%)	0.4	5.5	3.6	4.2	2.7	3.3	5.9
Difference	2.3 **	4.1	-1.0	4.2 *	0.1	1.9 **	3.9
Ever participated in any basic education activity							
Experimentals (%)	48.0	34.2	19.3	35.6	37.0	34.8	30.1
Controls (%)	7.9	9.9	8.3	10.6	8.0	8.9	8.2
Difference	40.1 ***	24.3 ***	11.0 ***	25.0 ***	29.0 ***	25.9 ***	21.9 ***
Ever participated in job search activities							
Experimentals (%)	15.1	7.0	16.2	23.6	11.6	14.7	15.7
Controls (%)	3.3	0.0	0.5	6.9	0.9	2.3	4.3
Difference	11.8 ***	7.0 ***	15.7 ***	16.7 ***	10.7 ***	12.4 ***	11.4 ***
Ever participated in vocational training							
Experimentals (%)	10.2	7.5	10.3	13.1	6.0	9.4	4.7
Controls (%)	9.5	6.9	11.9	13.8	5.3	9.5	7.2
Difference	0.7	0.6	-1.6	-0.7	0.7	-0.1	-2.5
Ever participated in post-secondary education							
Experimentals (%)	15.1	6.4	11.9	11.0	13.4	11.6	5.6
Controls (%)	14.1	4.5	10.8	9.0	10.7	9.8	3.7
Difference	1.0	1.9	1.1	2.0	2.7	1.7	1.9
Ever participated in work experience							
Experimentals (%)	4.0	0.5	0.5	3.7	3.7	2.5	0.0
Controls (%)	0.8	0.0	0.5	0.0	0.4	0.4	0.0
Difference	3.2 **	0.5	0.0	3.7 ***	3.3 **	2.1 ***	0.0
Ever participated in any activity							
Experimentals (%)	67.6	46.5	46.9	60.2	53.2	54.9	45.4
Controls (%)	30.3	20.3	31.4	32.8	22.7	27.5	21.0
Difference	37.3 ***	26.2 ***	15.5 ***	27.4 ***	30.5 ***	27.4 ***	24.4 ***
Sample size							
Experimentals	225	187	388	191	216	1,207	146
Controls	241	202	194	189	225	1,051	147

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: Calculations for this table used data for all survey responders, including those who did not participate in the activity.

The follow-up period for the survey ranged from 26 to 37 months, on average, across the five counties. Butte County was not included in the GAIN survey. See Appendix Table C.1 for further information on the follow-up period in each county.

This table includes participation in activities arranged through the GAIN program, as well as those in which registrants participated on their own initiative.

"Post-secondary education" includes a small proportion of individuals (roughly 10 percent of participants) who attended high school.

Rounding may cause slight discrepancies in calculating sums and differences.

The "all county" estimate is the average of the county estimates, with each county weighted equally.

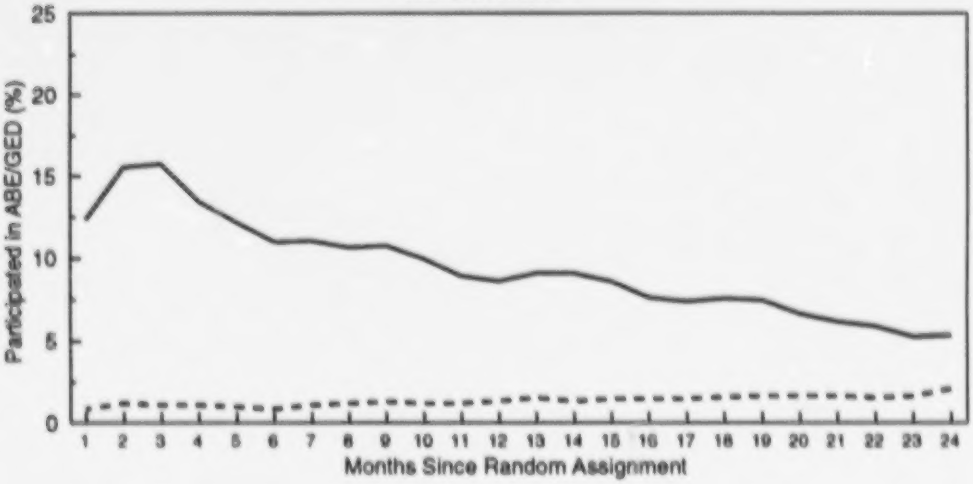
A two-tailed t-test was applied to differences between experimental and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) The AFDC-U sample does not include any registrants from Alameda.

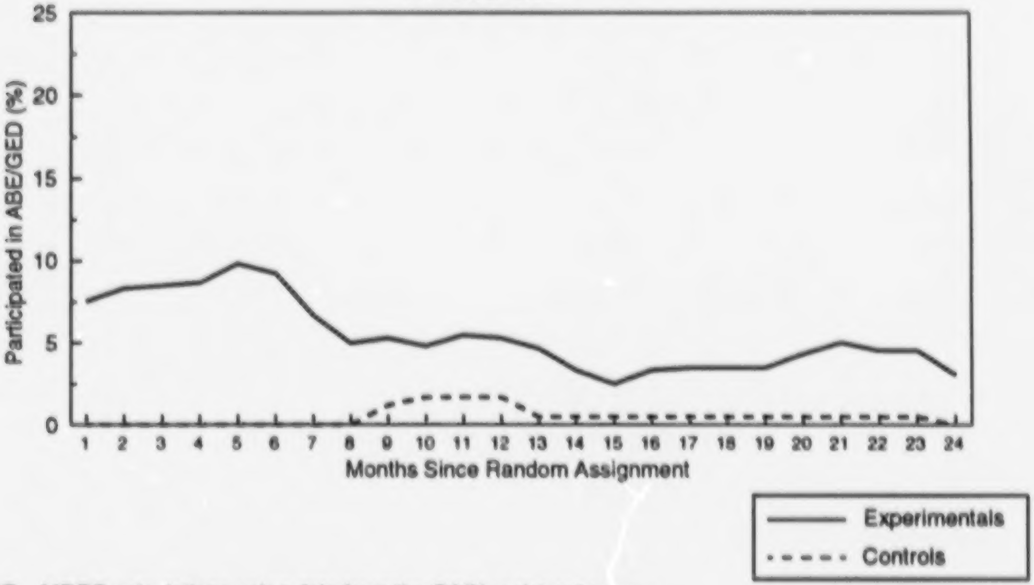
FIGURE 4.1

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: MONTHLY PARTICIPATION IN ABE/GED, BY RESEARCH GROUP AND AFDC STATUS

AFDC-FG Survey Respondents
All Counties



AFDC-U Survey Respondents
All Counties



SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: Butte County was not included in the GAIN survey.
All counties are weighted equally.

years. As shown in the figure, the percentage of controls in ABE/GED programs was very low and relatively constant over time, while the percentage of experimentals in these programs peaked at 16 percent during the first three months and fell gradually over the follow-up period. As would be expected, the impacts were greatest during the first year of the program, and the service receipt differences declined toward the end of the follow-up period. The results for AFDC-Us were similar, although these registrants participated in ABE/GED activities at lower levels: The maximum participation rate for AFDC-U experimentals was 10 percent, a rate reached in the fifth month after the sample entered GAIN.

Graphs presenting these data for each county individually, and for AFDC-FG registrants only, are presented in Appendix Figure D.1. The results reveal marked differences across the counties, reflecting their different implementation practices and the populations their GAIN programs served (as discussed in Chapters 2 and 3). The GAIN basic education treatment was relatively lengthy in Alameda, Los Angeles, and Tulare. Impacts on participation in ABE/GED in these counties peaked at close to or over 20 percentage points during the first year, and were statistically significant over most of the uniform two-year follow-up period used in the figure. As shown in Appendix Table D.1, in some counties there was a small but statistically significant impact on the proportion of individuals who were participating in basic education activities at the end of the entire two- to three-year follow-up period: an impact of 6 percentage points in Alameda and 4 in Tulare. Thus, in these counties, GAIN's impact on participation levels in ABE/GED activities had diminished, but not completely, by the end of the follow-up period for this report. If more experimentals than controls were participating in activities at the end of the follow-up period, it is possible that the program's full effects (on education, employment, or welfare outcomes) would not have been observed within this time frame.

In Riverside and San Diego, the GAIN treatment was of shorter duration. The impacts on participation levels achieved in the first year were smaller and became not statistically significant in the first year of follow-up: by month 7 in Riverside and by month 11 in San Diego (see Appendix Figure D.1).[12]

As discussed in Chapter 3, county variation in the duration of the basic education treatment was influenced by the different patterns of welfare receipt in each county. In Alameda and Los Angeles, which focused on serving long-term recipients, sample members tended to stay on welfare longer.[13]

---

[12] The decline of impacts in San Diego was in part due to an increase in the level of service receipt for controls.

[13] For the experimental group, the average length of time on AFDC in each study county within the two-year follow-up period was: Alameda, 22 months; Los Angeles, 21 months; Riverside, 16 months; San Diego, 19 months; and Tulare, 19 months.

Thus, the length of participation in these activities could have been greater partly because sample members were available to participate in them for a longer period. In contrast, in Riverside both the length of time on AFDC and the length of the basic education treatment were shorter. Nonetheless, the length of time on AFDC did not vary as much among counties as did the duration of the activities. Therefore, it appears that other factors, such as county implementation practices discussed earlier in this report, may also play a role in explaining the duration of participation in basic education.

GAIN also resulted in statistically significant impacts on the use of job search services across all the counties, as also shown in Table 4.2. Very few controls participated in these services, compared to 7 to 24 percent of the experimentals, depending on the county. The impacts varied across counties, ranging from 7 percentage points in Los Angeles to roughly 16 percentage points in Riverside and San Diego. AFDC-FGs and AFDC-Us participated in job search activities at nearly equal rates.

There also was a statistically significant but small increase (roughly 2 percentage points) in the use of work experience for AFDC-FG registrants. Work experience was most prevalent in Alameda, San Diego, and Tulare. No AFDC-U registrants reported that they had participated in work experience.

For those determined to need basic education, GAIN did not produce impacts on the use of vocational training or post-secondary education within the two- to three-year follow-up period. Experimentals and controls participated in these activities at comparable and moderate rates. Across all counties, roughly one-tenth of the sample members participated in vocational training, and a similar proportion participated in post-secondary education. AFDC-U registrants participated in these activities at somewhat lower rates than did AFDC-FG registrants, although, again, there were no statistically significant differences between experimentals and controls. Thus, although vocational training and post-secondary education services were available through GAIN – primarily after the initial basic education, job search, and assessment components – GAIN did not result in an increase in the proportion of welfare recipients who used these services within this follow-up period.

The last section of Table 4.2 shows the impact of GAIN on overall service receipt (defined as participation in any activity). For AFDC-FGs in all counties, GAIN produced statistically significant and notable impacts on this measure. The proportion of experimentals who participated in services ranged from 47 percent in Los Angeles and Riverside to 68 percent in Alameda. A substantial number of control group members received services: approximately 20 to 30 percent, depending on the county. Thus, GAIN's overall impact on service receipt ranged from 16 percent in Riverside to 37 percent in Alameda. Results for AFDC-Us were similar.

In sum, GAIN substantially increased the proportion of experimentals who participated in basic education and job search services, and produced small increases in the use of work experience. In all counties except Riverside, GAIN's largest participation effect was on the receipt of basic education, and basic education was the most commonly used service. The impacts on participation in ABE/GED lasted relatively long in Alameda and Tulare. In those counties, a significant share of experimentals were participating in ABE/GED during the second year of follow-up. For all counties, no impacts on the use of vocational training and post-secondary education were observed for the sample determined to need basic education during the follow-up period.

III. GAIN's Impacts on the Average Number of Months in Activities

The previous section showed that GAIN increased the proportion of sample members who participated in basic education services. Another important question is whether GAIN produced impacts on the *amount* of services received. This analysis uses two measures of the amount of education received, and includes data for both experimentals and controls. The measures are (1) the average number of months spent in basic education activities and (2) the average total scheduled hours in activities. It is important to remember that these average figures for the two groups include those who did *not* participate and, therefore, spent no time in the activity.[14] The results presented in this section are particularly important for interpreting impacts on education and economic outcome measures, which also compare all experimentals with all controls. These are discussed in Chapter 5.

Table 4.3 presents the impacts on the average number of months of participation in basic education and other employment-related activities over a two- to three-year follow-up period. As shown, GAIN produced statistically significant impacts on the number of months spent in education and job search activities. With regard to ABE/GED activities, Table 4.3 shows that, over the two- to three-year follow-up period, experimentals participated for 2.4 months in ABE/GED on average, while controls participated for an average of 0.4 months, for a statistically significant impact of 2.0 months. GAIN's impacts were largest in Alameda and Tulare (about 3 months). Riverside and San Diego had impacts closer to one month, and the results were statistically significant. Los Angeles and San Diego also produced small, but statistically significant, impacts on the number of months spent in ESL.[15]

Similar patterns are seen when results for all types of basic education activities are examined.

---

[14] Estimates of the length of time spent in education activities by *participants only* were presented in Chapter 3.

[15] These results do not change substantially when a uniform follow-up period of two years is used across all counties, as shown in Appendix Table D.2.

TABLE 4.3

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's TWO– TO THREE–YEAR IMPACTS ON THE AVERAGE NUMBER OF MONTHS IN SELECTED ACTIVITIES, BY AFDC STATUS AND COUNTY

	AFDC–FGs						AFDC–Us (a)
Outcome and Research Group	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Average number of months in ABE/GED							
Experimentals	3.8	2.8	0.9	1.5	3.0	2.4	1.4
Controls	0.5	0.6	0.2	0.3	0.2	0.4	0.1
Difference	3.4 ***	2.1 ***	0.6 ***	1.2 ***	2.8 ***	2.0 ***	1.3 ***
Average number of months in ESL							
Experimentals	0.3	1.1	0.2	0.5	0.4	0.5	1.3
Controls	0.1	0.4	0.2	0.2	0.2	0.2	0.5
Difference	0.2	0.7 **	0.0	0.3 *	0.1	0.3 ***	0.8 *
Average number of months in any basic education activity							
Experimentals	4.2	3.9	1.1	2.0	3.4	2.9	2.7
Controls	0.5	1.0	0.4	0.5	0.5	0.6	0.6
Difference	3.6 ***	2.9 ***	0.7 ***	1.5 ***	2.9 ***	2.3 ***	2.1 ***
Average number of months in job search activities							
Experimentals	0.2	0.1	0.3	0.4	0.2	0.2	0.2
Controls	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Difference	0.1 *	0.1 *	0.3 ***	0.3 ***	0.2 ***	0.2 ***	0.2 **
Average number of months in vocational training							
Experimentals	0.6	0.5	0.5	0.5	0.3	0.5	0.3
Controls	0.5	0.5	0.5	0.7	0.1	0.5	0.6
Difference	0.1	0.1	0.0	−0.2	0.2 *	0.0	−0.3
Average number of months in post–secondary education							
Experimentals	1.6	1.0	1.0	1.1	0.8	1.1	0.5
Controls	1.2	0.6	1.1	0.7	0.6	0.9	0.3
Difference	0.4	0.3	−0.1	0.4	0.2	0.2	0.2
Average number of months in work experience							
Experimentals	0.2	0.0	0.0	0.1	0.1	0.1	0.0
Controls	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Difference	0.2 **	0.0	0.0	0.1 **	0.1	0.1 ***	0.0
Sample size							
Experimentals	225	187	388	191	216	1,207	146
Controls	241	202	194	189	225	1,051	147

SOURCES AND NOTES: See Table 4.2.

GAIN produced an impact on the number of months attended that ranged from 0.7 months in Riverside to 3.6 months in Alameda. Again, the county variation in these results is partially explained by the different patterns of welfare receipt in each county.

The impacts on the number of months in ABE/GED activities was primarily due to more experimentals having attended activities, rather than to experimental group members who participated in ABE/GED having attended those activities for a longer period of time than did control group members who participated in them (i.e., without the intervention of GAIN). Table 4.4 displays the calculations made to compute the number of months attended for each research group in each county. This indicates that, in Alameda and Tulare, experimentals who participated in ABE/GED stayed in those activities for longer than did controls who participated in ABE/GED; in Los Angeles, they did not stay as long. Nevertheless, the much larger proportion of experimentals who participated in ABE/GED accounted for most of the overall impact on the number of months attended.

Table 4.3 indicates that GAIN produced statistically significant (but small) impacts on the average number of months in job search and work experience. Overall, GAIN did not produce impacts on the number of months in vocational training (except for a small impact in Tulare) or in post-secondary education.

IV. GAIN's Impacts on Total Scheduled Hours in Activities

It is also important to measure GAIN's impacts on the average number of total scheduled hours in activities, since this provides another gauge of GAIN's effects on the amount of education (and other services) received by registrants. The GAIN survey collected information on the number of hours per week registrants reported they were scheduled for each activity they attended. As discussed in Chapter 3, this was used to calculate the average number of hours experimentals and controls were *scheduled* for activities over the two- to three-year follow-up period (*not* the amount they actually *attended*). It is important to remember that these average figures for the two groups include those who did *not* participate and, therefore, spent no time in the activity.[16]

As indicated in Table 4.5, the impacts on the total scheduled hours in basic education services received generally followed patterns similar to those described above for the length of stay in activities.

---

[16] Estimates of the average number of total scheduled hours in basic education activities for *participants only* were presented in Chapter 3. In addition, Chapter 3 provided information on the number of hours participants actually attended their activities.

TABLE 4.4

FOR AFDC-FGs DETERMINED TO NEED BASIC EDUCATION: THE EFFECT OF GAIN ON PARTICIPATION AND LENGTH OF STAY IN ABE/GED, BY COUNTY

	Experimental Group					Control Group				
County	Percent Participating in ABE/GED	X	Average Number of Months Per Participant	=	Average Number of Months Per Experimental	Percent Participating in ABE/GED	X	Average Number of Months Per Participant	=	Average Number of Months Per Control
Alameda	45.3		8.5		3.8	7.5		6.0		0.5
Los Angeles	24.6		11.2		2.8	4.5		13.7		0.6
Riverside	16.8		5.1		0.9	4.6		5.3		0.2
San Diego	29.3		5.1		1.5	6.9		4.9		0.3
Tulare	34.7		8.7		3.0	5.3		4.3		0.2
All Counties	30.2		7.9		2.4	5.8		6.5		0.4

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: Calculations for this table used data for all survey responders, including those who did not participate in the activity.

The follow-up period for the survey ranged from 26 to 37 months, on average, across the five counties. Butte County was not included in the GAIN survey. See Appendix Table C.1 for further information on the follow-up period in each county.

This table includes participation in activities arranged through the GAIN program, as well as those in which registrants participated in their own initiative.

Rounding may cause slight discrepancies in calculating sums and differences.

The "all county" estimate is the average of the county estimates, with each county weighted equally.

TABLE 4.5

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's TWO– TO THREE–YEAR IMPACTS ON AVERAGE TOTAL SCHEDULED HOURS IN SELECTED ACTIVITIES BY AFDC STATUS AND COUNTY

	AFDC–FGs						AFDC–Us (a)
Outcome and Research Group	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Average total scheduled hours in ABE/GED							
Experimentals	253.9	272.2	79.8	159.8	218.1	196.8	149.6
Controls	24.7	45.2	13.2	30.0	10.9	24.8	6.7
Difference	229.2 ***	227.0 ***	66.6 ***	129.8 ***	207.2 ***	172.0 ***	142.9 ***
Average total scheduled hours in ESL							
Experimentals	22.3	101.8	15.5	29.5	28.4	39.5	104.9
Controls	3.7	26.5	12.0	12.3	13.2	13.5	36.8
Difference	18.6	75.3 **	3.5	17.2	15.2	26.0 ***	68.1 *
Average total scheduled hours in any basic education activity							
Experimentals	276.2	374.0	95.3	189.2	246.5	236.3	254.5
Controls	28.4	71.7	25.2	42.3	24.2	38.4	43.4
Difference	247.8 ***	302.3 ***	70.1 ***	146.9 ***	222.4 ***	197.9 ***	211.1 ***
Average total scheduled hours in job search activities							
Experimentals	14.6	17.4	19.3	40.1	12.8	20.8	17.5
Controls	10.5	0.0	0.5	5.4	0.2	3.3	2.1
Difference	4.1	17.4 *	18.8 ***	34.7 ***	12.6 ***	17.5 ***	15.4 **
Average total scheduled hours in vocational training							
Experimentals	43.4	64.9	48.0	55.9	35.4	49.5	29.2
Controls	50.6	39.6	50.2	63.4	13.3	43.4	74.2
Difference	−7.2	25.3	−2.2	−7.5	22.1	6.1	−45.0
Average total scheduled hours in post–secondary education							
Experimentals	116.9	113.0	73.1	73.8	63.5	88.1	36.6
Controls	83.7	46.5	95.8	78.3	53.4	71.5	23.2
Difference	33.2	66.5	−22.7	−4.5	10.1	16.6	13.4
Sample size							
Experimentals	225	187	388	191	216	1,207	146
Controls	241	202	194	189	225	1,051	147

SOURCE: See Table 4.2.

NOTES: See Table 4.2.
Data on hours in work experience activities were not collected on the survey.

GAIN produced a statistically significant impact on the total scheduled hours of participation in ABE/GED in all counties, averaging roughly 172 hours across the counties. Again, the GAIN programs in Alameda, Los Angeles, and Tulare had the largest effect on total scheduled hours (over 200), while impacts for Riverside and San Diego were substantially lower (67 and 130 hours, respectively).[17]

The impacts of GAIN on total scheduled hours in ABE/GED programs were due mostly to more people attending rather than to higher weekly scheduled hours for activities. Appendix Table D.4 lists the weekly scheduled hours for basic education (and other activities) for experimentals and controls. This indicates that, particularly in Los Angeles and San Diego, experimentals who participated in basic education activities were, in fact, scheduled for more hours per week than were control group members. However, the much larger proportion of experimentals who participated in ABE/GED accounted for most of GAIN's impacts on total scheduled hours in basic education.

The results for AFDC-U registrants were similar to those for AFDC-FG registrants, although the impacts on average number of months of participation and average total scheduled hours were somewhat less for ABE/GED and somewhat more for ESL.[18]

V. Differences in Participation Levels and Amount of Education Received for Subgroups

This section presents impacts on participation levels, average number of months of participation, and average total scheduled hours in ABE/GED for subgroups. Combining sample members from all counties,[19] this subgroup analysis is intended to identify groups for whom the net effect of GAIN – in terms of participation levels or length of time in basic education activities – was greatest. This is important to know because it is hoped that, in the long run, a payoff will be achieved for the groups in which GAIN made the largest investment.

---

[17] These results do not change substantially when a uniform follow-up period of two years is used across all counties, as shown in Appendix Table D.3.

[18] Impacts on amount of basic education received have been estimated for other programs that have emphasized basic education services and that have been evaluated using an experimental design. Although exact comparisons with GAIN cannot be made because of differences in program design and populations served, these results provide useful benchmarks. Unpublished data from the evaluation of the SWIM program in San Diego – a mandatory welfare-to-work program that preceded GAIN and offered basic education as a later activity in the program model (after job search and work experience) – show that the program produced an impact of 0.5 months on the number of months of basic education received within a two- to three-year follow-up period. (The sample used in this analysis was a random cross section of the mandatory AFDC caseload and included welfare recipients determined to need or not need basic education). See Friedlander and Hamilton, 1993, for the most recent results from the SWIM evaluation. Findings from the JOBSTART Demonstration – a voluntary program that offered basic education, training, and other services to high school dropouts – produced impacts on total hours of education *and* training received of 370 hours within a two-year follow-up period. See Cave and Doolittle, 1991. Findings from the evaluation of Ohio's LEAP program, which offers financial incentives for teen mothers to stay in school or return to school, show that the program produced a statistically significant impact on the average number of months enrolled in high school or adult education, for teens who initially were not in school, of 1.3 months within a one-year follow-up period. See Bloom et al., 1993.

[19] Counties were weighted equally in the subgroup estimates.

As discussed in Chapter 3, several of the subgroups studied for this report (including this section of the chapter) were defined according to their baseline (pre-GAIN) education levels: whether they scored 215 or above on the CASAS reading or mathematics test (or both), whether they had a high school diploma or a GED, and the highest grade they had completed. Subgroups relating to the economic status of the registrants are also examined. These include whether the registrant was an AFDC applicant, a short-term recipient (on AFDC for two years or less), or a long-term recipient (on AFDC for more than two years), and whether the registrant was employed in the prior year. The "most disadvantaged" registrants were defined as those who were lacking a high school diploma or a GED, were long-term recipients, and had no earnings in the prior year. Finally, subgroups based on the age of the registrant are examined.

As Table 4.6 shows, GAIN's impacts on levels of participation and amount of ABE/GED services received were statistically significant for all the subgroups analyzed. This means that GAIN had an effect on the amount of basic education received, above and beyond what welfare recipients would have done on their own, for important subgroups of the welfare population.

There are, however, some important distinctions to be noted. For long-term AFDC recipients and applicants, GAIN's impacts on participation levels in ABE/GED were 26 and 11 percentage points, respectively. Impacts on participation levels were also smaller for those who did not have a CASAS score at baseline. This is because many of those without a CASAS score were non-English speakers, and were therefore unlikely to participate in ABE/GED. For those with no CASAS score, there was a statistically significant impact on the receipt of ESL services of 11 percentage points (not shown in the table). In addition, GAIN's effects on participation were smaller for younger (under 25) and older (over 45) welfare recipients.

The amount of education received tended to be larger for those who scored below 215 on both CASAS tests or were long-term recipients. For example, the impacts for those who scored 215 or more on both CASAS tests were 2.2 months and 175 hours, compared to 3.0 months and 289 hours for those who scored below this level on both tests. Impacts on the amount of basic education received were also larger for those in the 25 to 44 age bracket (compared to both younger and older sample members).

These findings indicate that GAIN was effective in inducing different subgroups of welfare recipients to participate in ABE/GED activities. Compared to what they would have done on their own,

TABLE 4.6

FOR AFDC–FGs DETERMINED TO NEED BASIC EDUCATION: PARTICIPATION RATES, AVERAGE NUMBER OF MONTHS, AND TOTAL SCHEDULED HOURS IN ABE/GED, BY SELECTED CHARACTERISTICS AT THE TIME OF RANDOM ASSIGNMENT

Characteristic and Subgroup	Percent of Sample	Percent Who Participated in ABE/GED			Average Number of Months in ABE/GED			Total Scheduled Hours in ABE/GED		
		Experimentals	Controls	Difference	Experimentals	Controls	Difference	Experimentals	Controls	Difference
Score on CASAS reading test				xxx			xxx			xxx
225 or above	46.1	34.8	6.0	28.8 ***	2.6	0.4	2.2 ***	212.6	29.0	183.6 ***
215–224	18.1	36.6	8.4	28.2 ***	2.9	0.5	2.4 ***	220.6	32.2	188.4 ***
214 or below	15.4	34.8	3.6	31.2 ***	3.3	0.3	3.1 ***	307.9	19.3	288.5 ***
No score	20.4	12.7	3.5	9.3 ***	1.2	0.2	1.0 ***	100.2	9.9	90.3 ***
Score on CASAS math test				xxx			xxx			xxx
215 or above	23.3	38.5	5.8	32.7 ***	2.4	0.2	2.2 ***	183.7	8.8	174.9 ***
214 or below	56.2	34.0	6.3	27.7 ***	2.9	0.4	2.5 ***	250.8	35.8	215.0 ***
No score	20.4	12.7	3.5	9.3 ***	1.2	0.2	1.0 ***	100.2	9.9	90.3 ***
Score on both CASAS tests				xxx			xxx			xxx
215 or above on both	22.4	39.8	5.7	34.2 ***	2.5	0.2	2.2 ***	186.2	8.8	177.4 ***
214 or below on one	42.8	32.9	7.2	25.7 ***	2.8	0.5	2.3 ***	223.1	40.4	182.7 ***
214 or below on both	14.4	35.0	3.4	31.6 ***	3.3	0.3	3.0 ***	308.1	19.2	288.9 ***
No score	20.4	12.7	3.5	9.3 ***	1.2	0.2	1.0 ***	100.2	9.9	90.3 ***
High school diploma or GED										
Yes	22.9	24.6	2.6	22.0 ***	1.7	0.2	1.5 ***	159.4	9.4	150.0 ***
No	77.1	31.6	6.8	24.8 ***	2.6	0.4	2.2 ***	208.5	29.5	179.0 ***
Highest grade completed				xxx			xx			x
11 or above	48.5	29.0	3.6	25.5 ***	2.0	0.2	1.8 ***	172.8	11.3	161.5 ***
9 or 10	27.1	40.0	8.2	31.7 ***	3.3	0.5	2.8 ***	267.7	34.1	233.6 ***
8 or below	23.8	22.8	6.1	16.7 ***	2.2	0.5	1.8 ***	181.1	33.2	147.9 ***
Aid status (a)				xx			xxx			xxx
Applicant	11.5	20.5	9.1	11.4 **	1.3	0.5	0.8 **	113.4	42.7	70.7 *
Short–term recipient	17.0	29.6	6.8	22.9 ***	1.6	0.3	1.3 ***	132.1	20.4	111.7 ***
Long–term recipient	71.5	30.6	4.7	25.9 ***	2.5	0.3	2.2 ***	206.3	18.8	187.5 ***
Summary measure of disadvantagedness (b)							xx			
Less disadvantaged	58.4	30.1	5.0	25.1 ***	2.1	0.3	1.8 ***	177.9	16.1	161.8 ***
Most disadvantaged	41.2	31.7	5.9	25.8 ***	2.9	0.4	2.5 ***	234.4	27.5	206.9 ***
Employed in prior year										
Yes	30.7	28.0	5.4	22.6 ***	2.0	0.3	1.7 ***	164.2	11.0	153.2 ***
No	68.9	31.0	6.2	24.9 ***	2.5	0.4	2.1 ***	210.7	31.0	179.7 ***
Age				xxx			xxx			xxx
24 or under	8.1	21.4	13.6	7.8	1.1	0.7	0.4	99.0	62.2	36.8
25–34	42.5	34.7	7.3	27.3 ***	2.7	0.6	2.1 ***	216.3	42.3	174.0 ***
35–44	33.5	31.9	3.5	28.4 ***	2.7	0.2	2.5 ***	234.2	7.9	226.3 ***
45 or over	15.9	15.8	1.8	14.1 ***	1.5	0.1	1.4 ***	112.4	6.6	105.8 ***
Sample size (total = 2,258)		1,207	1,051		1,207	1,051		1,207	1,051	

(continued)

TABLE 4.6 (continued)

SOURCE: MDRC calculations using data from GAIN intake forms and the GAIN registrant survey.

NOTES: Sample characteristics were recorded on the intake form by GAIN staff at orientation, and are based on answers from GAIN registrants.

Calculations for this table used data for all survey responders, including those who did not participate in the activity.

The follow-up period for the survey ranged from 26 to 37 months, on average, across the five counties. Butte County was not included in the GAIN survey. See Appendix Table C.1 for further information on the follow-up period in each county.

Nine cases are lacking the information necessary to calculate estimates related to prior earnings. These cases are not included in the analysis of the subgroups based on disadvantagedness and prior-year employment. Also, a small proportion of cases are missing grade level information and are not included in this subgroup.

This table includes participation in activities arranged through the GAIN program, as well as those in which registrants participated on their own initiative.

Rounding may cause slight discrepancies in calculating sums and differences.

All counties are weighted equally in the subgroup estimates.

Sample members are missing CASAS test scores primarily because they were not proficient in English.

A two-tailed t-test was applied to differences between experimental and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

An F test was applied to differences among subgroups for each characteristic. Statistical significance levels are indicated as xxx = 1 percent; xx = 5 percent; x = 10 percent.

(a) Applicants are registrants who were applying for AFDC at the time of referral to GAIN orientation; they include reapplicants who may have had prior AFDC receipt. Short-term recipients had received AFDC for two years or less; long-term recipients had received AFDC for more than two years (the AFDC receipt may not have been continuous).

(b) The "most disadvantaged" individuals are those who did not have a high school diploma or GED, were long-term welfare recipients, and had no earnings in the prior year. The "less disadvantaged" category contains those who did not meet these criteria.

GAIN had a greater effect on the amount of basic education received by the more disadvantaged segment of the caseload. In part, this is because more disadvantaged individuals tended to spend more time on AFDC and were available to participate in activities for a longer period of time.

VI. Summary

The data presented in this chapter indicate that GAIN produced large impacts on participation levels in basic education and job search but not in other activities. Impacts on participation rates in basic education activities persisted over most of the two- to three-year follow-up period, particularly in Alameda, Los Angeles, and Tulare (where overall impacts on participation levels were generally high). In Alameda and Tulare, the impacts on service receipt had mostly, but not completely, declined by the end of the follow-up period. Reflecting both their implementation practices and the nature of the welfare caseload served, the duration of the GAIN treatment was longer in these counties than in Riverside and San Diego.

GAIN's impacts on average number of months and total scheduled hours in ABE/GED were two months and 170 hours, respectively, and were largest in Alameda and Tulare. Most of these impacts were realized because more experimentals than controls attended activities, rather than because experimentals who attended went for a longer period of time. Thus, GAIN's primary effect was on increasing the number of welfare recipients who returned to school, rather than on the amount of time they stayed once they returned.

Impacts on these measures were statistically significant for nearly all the subgroups that were examined. The impacts on the amount of basic education received were larger for the more disadvantaged members of the sample: those with lower literacy levels and longer prior welfare receipt when they entered the research sample. Again, the more substantial impacts on participation and length of stay in Alameda and Los Angeles can, in part, be explained by the fact that these programs served only long-term recipients.

These results suggest that GAIN achieved its key short-term objective of increasing the level of basic education services received by welfare recipients, above what they would have done on their own. In Alameda, Los Angeles, and Tulare, it appears that a relatively long investment in basic education services was being made and that a larger investment was being made by the more disadvantaged segment of this population.

CHAPTER 5

GAIN'S IMPACTS ON EDUCATIONAL ATTAINMENT AND ACHIEVEMENT

The previous chapter showed that GAIN led to increases in the amount of basic education the experimental group received. This chapter addresses the question of whether this increase translated into increases in the educational attainment and achievement of welfare recipients within a two- to three-year follow-up period. Section I presents GAIN's impacts on educational attainment, as measured by receipt of a credential – specifically, a GED (or, in some cases, a high school diploma). Section II discusses GAIN's impacts on educational achievement, as measured by literacy test scores. Section III concludes the chapter by examining the implications of these education outcomes for the employment, earnings, and welfare experiences of recipients.[1]

For the analyses in this chapter, it is important to differentiate between educational *attainment* and educational *achievement*. Educational attainment refers to receipt of a credential, which usually requires an individual to pass an examination, course, or series of courses. Educational achievement refers to the academic skills level of an individual. To some extent, impacts on educational attainment and achievement could occur independently of each other. Some GAIN registrants might have to increase their achievement levels in order to learn the material necessary to obtain a credential; others may already possess the academic skills necessary to acquiring a credential and may only have to master the specific information needed to pass a certain course or examination. Alternatively, an education program may increase academic skills without necessarily leading to a particular credential. When interpreting the results in this chapter, the distinction between achievement and attainment should be kept in mind.

I. Impacts on Educational Attainment

This section reports on GAIN's impacts on educational attainment – specifically, receipt of a GED or a high school diploma. The data for this section were collected through the GAIN registrant survey, which was administered to both experimentals and controls two to three years after random assignment. To measure the educational attainment impacts of GAIN, post-random assignment receipt of a GED or a high school diploma for all experimentals was compared to that for all control group members. This section begins by exploring the impacts on GED and high school diploma receipt achieved by the GAIN study counties and then examines the impacts for subgroups of welfare recipients. It concludes with a discussion of the factors influencing the county results.

---

[1] This chapter does not include data on these issues beyond those presented in the previous report from the GAIN evaluation (Friedlander, Riccio, and Freedman, 1993). Additional information, based on longer follow-up, will be included in the evaluation's final report, scheduled for 1994.

A. Impacts on Receipt of a GED or a High School Diploma

The majority of sample members who were determined by GAIN to need basic education lacked a GED or a high school diploma. For many of them, an important short-term objective of the GAIN program is to help them pass the GED test[2] or, in some cases, obtain a high school diploma. It is expected that attainment of this credential would, in turn, allow these individuals to compete more effectively in the labor market.

There are three things to keep in mind when interpreting the magnitude of these impacts. First, as discussed in previous chapters, because of the nature of the GAIN program and welfare dynamics, only a portion of sample members participated in ABE or GED programs. Although not the only way to get a GED, participation in these kinds of programs makes it more likely that an individual will receive it. Second, even for those who did participate in a basic education program, acquiring a GED or a high school diploma was not always the goal (see Chapter 3). Some programs (particularly ABE programs) had other aims, such as learning enough basic reading and mathematics to achieve a specified score on a standardized test. Finally, some individuals who were determined to need basic education already had a GED or a high school diploma, so obtaining one of these credentials would not have been an appropriate goal; instead, GAIN usually sought improvement in their reading or mathematics performance (see Chapter 2).

Information on receipt of a GED or a high school diploma during the two- to three-year follow-up period was obtained from the self-reports of GAIN survey respondents. Data were obtained for 2,551 sample members, for an overall response rate of about 80 percent. An analysis of differences between respondents and nonrespondents may be found in Appendix A and shows that respondents received more AFDC prior to random assignment, were more likely to fall into the "most disadvantaged" category, and had other differences as well. These differences did not, however, appear likely to make educational attainment impacts estimated for survey respondents much different from impacts for the full sample of respondents plus nonrespondents. Among respondents, the only significant difference between experimentals and controls was in their distribution across counties. These county differences were expected, given the planned differences in ratios of experimentals to controls. The weighting procedure adopted in this chapter (and in earlier parts of this report) will correct for those county differences. Thus, comparing experimentals and controls should give unbiased, internally valid estimates of GAIN's impacts on educational attainment.

---

[2] As discussed in Chapter 3, the GED test consists of five tests of high school performance in five areas: social studies, literature, science, mathematics, and essay-writing.

GAIN's impacts on educational attainment within the two- to three-year follow-up period are presented in Table 5.1. This table reports the percentage of sample members who were determined to need basic education who received a credential *during the follow-up period* (i.e., after random assignment). Impacts were measured by comparing all experimentals to all controls. Sample members who already possessed a GED or a high school diploma when they enrolled in the program were retained in the sample for this comparison, even though they were obviously not expected to have re-obtained this credential during the follow-up period.[3] Thus, in Table 5.1, sample members counted as not having received a credential include those who already had one before random assignment as well as those who did not have one and did not get one during follow-up. For those determined to need basic education, the proportion of AFDC-FG survey respondents who had a GED or a high school diploma at the time of random assignment was 16 percent in Tulare, 19 percent in Los Angeles and Riverside, 23 percent in San Diego, and 39 percent in Alameda.[4]

For AFDC-FG registrants in all five counties combined, there was a statistically significant impact on GED or high school diploma receipt of 7 percentage points within the two- to three-year follow-up period (see the second section of the table). This impact was almost entirely for receipt of a GED rather than a high school diploma: The impact on GED receipt alone was 6 percentage points. This was the case because most of the schools serving GAIN students geared their programs to receipt of a GED rather than a high school diploma. For AFDC-U registrants, the impact on receipt of a GED or a high school diploma was smaller (3 percentage points) but statistically significant.

GAIN produced no impacts on receipt of trade certificates, associate's degrees, or bachelor's degrees overall or in any county. Given the low education levels of the group studied for this report, few registrants were successful in obtaining associate's or bachelor's degrees. Obtaining a trade certificate was more common (about 6 percent of the sample received one), but was about the same for experimentals and controls, i.e., GAIN did not *increase* receipt of trade certificates.

---

[3] This was done to make the base for these impacts comparable to the base for the participation impacts.

[4] Across all five counties, 15 percent of the AFDC-U sample members had a GED or a high school diploma at the time of random assignment. These percentages were calculated from data reported on the GAIN intake forms. (See Appendix Table B.2.) As previously discussed, Butte was not included in the respondent survey or the TALS testing and was not part of the study of education outcomes.

TABLE 5.1

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's IMPACTS ON CREDENTIAL RECEIPT WITHIN A TWO- TO THREE-YEAR FOLLOW-UP PERIOD, BY AFDC STATUS AND COUNTY

	AFDC-FGs						AFDC-Us (a)
Outcome and Research Group	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Received GED during follow-up period							
Experimentals (%)	6.7	1.1	5.4	6.8	16.2	7.2	2.9
Controls (%)	0.8	0.0	3.1	1.6	0.9	1.3	0.7
Difference	5.9 ***	1.1	2.3	5.2 **	15.3 ***	6.0 ***	2.2
Received GED or high school diploma during follow-up period							
Experimentals (%)	8.9	2.7	6.2	6.8	20.8	9.1	3.8
Controls (%)	1.2	0.5	3.6	2.7	1.8	2.0	0.7
Difference	7.7 ***	2.2 *	2.6	4.1 *	19.0 ***	7.1 ***	3.1 *
Received GED or high school diploma, months 1-6							
Experimentals (%)	4.0	0.0	2.3	1.1	8.3	3.1	1.6
Controls (%)	0.0	0.0	2.1	0.5	0.4	0.6	0.0
Difference	4.0 ***	0.0	0.2	0.6	7.9 ***	2.5 ***	1.6
Received GED or high school diploma, months 7-12							
Experimentals (%)	1.3	0.0	1.3	3.1	4.6	2.1	0.9
Controls (%)	0.4	0.0	0.0	0.0	0.4	0.2	0.0
Difference	0.9	0.0	1.3	3.1 **	4.2 ***	1.9 ***	0.9
Received GED or high school diploma, months 13-24							
Experimentals (%)	2.7	1.1	1.8	2.6	6.9	3.0	1.4
Controls (%)	0.4	0.0	1.6	1.6	0.9	0.9	0.0
Difference	2.3 **	1.1	0.2	1.0	6.0 ***	2.1 ***	1.4
Received trade certificate during follow-up period							
Experimentals (%)	5.8	3.2	6.7	7.3	8.3	6.3	2.6
Controls (%)	5.4	2.0	7.2	7.9	5.3	5.6	4.6
Difference	0.4	1.2	-0.5	-0.6	3.0	0.7	-2.0
Received associate's degree during follow-up period							
Experimentals (%)	0.0	0.5	0.3	0.5	0.0	0.3	0.0
Controls (%)	0.8	0.5	0.0	0.5	0.0	0.4	0.0
Difference	-0.8	0.0	0.3	0.0	0.0	-0.1	0.0
Received bachelor's degree during follow-up period							
Experimentals (%)	0.0	0.5	0.3	0.0	0.0	0.2	0.0
Controls (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Difference	0.0	0.5	0.3	0.0	0.0	0.2	0.0
Sample size							
Experimentals	225	187	388	191	216	1,207	146
Controls	241	202	194	189	225	1,051	147

(continued)

TABLE 5.1 (continued)

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: Calculations for this table used data for all survey responders, including those who did not participate in basic education.

The follow-up period for the survey ranged from 26 to 37 months, on average, across the five counties. Butte County was not included in the GAIN survey. See Appendix Table C.1 for further information on the follow-up period in each county.

The "all county" estimate is the average of the county estimates, with each county weighted equally.

Rounding may cause slight discrepancies in calculating sums and differences.

A two-tailed t-test was applied to differences between experimental and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) The AFDC-U sample does not include any registrants from Alameda.

There was substantial county variation in GAIN's impacts on educational attainment.[5] Tulare achieved a striking impact on receipt of a GED or a high school diploma: a 19 percentage point differential between experimentals and controls. This was followed by an 8 percentage point impact in Alameda. Los Angeles and San Diego produced modest but statistically significant impacts on GED or high school diploma receipt – 2 and 4 percentage points, respectively.[6] The GAIN program in Riverside, which had a relatively stronger focus on rapid employment than did the other counties, also produced only a small impact on GED or high school diploma receipt – under 3 percentage points and not statistically significant. Factors contributing to these county differences are discussed at the end of this section.

As shown in Table 5.1, approximately one-third of the impacts on credential receipt occurred within the first six months after random assignment, but one-third also occurred during the second year of follow-up. Particularly in Alameda and Tulare, there were GED and high school diploma impacts well into the second year of follow-up.[7] This suggests that welfare and employment impacts may not appear within that two-year follow-up period. When sample members are in school to obtain their GED or high school diploma, one might expect to see them not working or working less.

B. Impacts on GED and High School Diploma Receipt for Subgroups

This subsection presents subgroup impact estimates for GED and high school diploma receipt. Combining sample members from all counties,[8] this analysis is intended to identify groups that obtained relatively large or small impacts on GED or high school diploma receipt.

---

[5] Variation in credential receipt impacts across counties was statistically significant at the .01 level.

[6] One anomaly in the survey data is worth mentioning. In San Diego, about 7 percentage points more experimentals than controls said they had a high school diploma or a GED prior to entering GAIN, according to the registrant survey. This pre-random assignment difference was not counted as part of the attainment impacts given in Table 5.1. Moreover, a different data source, the baseline data collected from sample members prior to random assignment, showed only a small pre-program difference in the percentage with a diploma or a GED. The pre-random assignment difference obtained from the survey may have been the result of recall error among respondents.

[7] It is also interesting to examine the extent to which GED or high school diploma receipt was associated with participation in ABE/GED programs. It is important to be aware that the analysis presented in this note is a nonexperimental analysis, not an impact analysis. It examines GED receipt for members of the experimental group who participated in a basic education program and does not compare experimentals and controls.

Overall, not all of those who received a GED or a high school diploma after random assignment participated in an ABE/GED program. For the experimental group, 31 percent of those who received a GED or a high school diploma reported that they had *not* participated in an ABE/GED program. This indicates that participation in basic education programs is not necessary to attaining these credentials. Some registrants appear to have obtained such a credential on their own, perhaps through a home study course or by taking the GED test without formal preparation.

[8] Counties were weighted equally in the subgroup estimates.

As discussed in Chapters 3 and 4, several of the subgroups studied for this report were defined using the baseline (pre-GAIN) education levels of recipients: whether they scored 215 or above on the CASAS reading or mathematics test (or both) and the highest grade they had completed. Subgroups relating to the economic status of the registrants were also examined. The criteria included whether the registrant was an AFDC applicant, short-term recipient (receiving AFDC for two years or less), or long-term recipient (receiving AFDC for more than two years), and whether the registrant was employed in the prior year. A category of "most disadvantaged" was also created and was defined as encompassing registrants who were lacking a high school diploma or a GED, were long-term recipients, and had no earnings in the prior year. Finally, subgroups based on the age of the registrant were examined.

The impacts on educational attainment for subgroups, along with the impacts on total scheduled hours in ABE/GED for the same subgroups (repeated from Table 4.6), are presented in Table 5.2.[9] As explained in Chapter 4, the impact on total scheduled hours in basic education is the difference between average scheduled hours for all experimentals in a subgroup and average scheduled hours for all controls in the same subgroup. The averages include members from both groups who did not participate and therefore spent no time in the activity (they are counted as zero in the averages).

This table shows that GAIN's impacts on GED and high school diploma receipt were highly concentrated in the subgroup of individuals at higher initial literacy levels. Specifically, those scoring 215 or above on both the reading and mathematics CASAS tests had a 20 percentage point impact on receipt of a GED or a high school diploma.[10] Those scoring 215 or above on only one of these tests had only a 5 percentage point impact. Sample members scoring below 215 on both CASAS tests and those having no CASAS test results (primarily because they could not read English) had no impacts on credential receipt. Large impacts were found for those who scored 215 or above on the CASAS mathematics test. Impacts were concentrated among those scoring highest (225 or above) on the CASAS reading test. For the subgroups defined by highest grade completed in school, impacts on GED and high school diploma receipt were found only for sample members who had previously completed some high

---

[9] The demographic characteristics of survey responders for selected subgroups (based on CASAS test scores and for the most and less disadvantaged groups) are presented in Appendix Table C.6. This table indicates that those at lower literacy levels were more likely to be long-term AFDC recipients and not to have worked in the prior two years.

[10] Individuals who scored 215 or above on both CASAS tests were determined to need basic education because they met another GAIN criterion: lack of a GED or a high school diploma (i.e., at the time of random assignment).

TABLE 5.2

FOR AFDC–FGs DETERMINED TO NEED BASIC EDUCATION: GAIN's IMPACTS ON CREDENTIAL RECEIPT WITHIN A TWO– TO THREE–YEAR FOLLOW–UP PERIOD, BY SELECTED CHARACTERISTICS AT THE TIME OF RANDOM ASSIGNMENT

Characteristic and Subgroup	Percent of Sample	Impact on Total Scheduled Hours in ABE/GED	Percent Who Received GED or High School Diploma During Follow–up Period		
			Experimentals	Controls	Difference
Score on CASAS reading test					xxx
225 or above	46.1	183.6	17.1	3.5	13.6 ***
215–224	18.1	188.4	3.9	0.9	3.0 *
214 or below	15.4	288.5	1.4	0.0	1.4
No score	20.4	90.3	1.0	0.5	0.5
Score on CASAS math test					xxx
215 or above	23.3	174.9	24.0	5.2	18.8 ***
214 or below	56.2	215.0	5.1	0.9	4.2 ***
No score	20.4	90.3	1.0	0.5	0.5
Score on both CASAS tests					xxx
215 or above on both	22.4	177.4	25.2	5.4	19.7 ***
214 or below on one	42.8	182.7	6.3	1.2	5.2 ***
214 or below on both	14.4	288.9	1.5	0.0	1.5
No score	20.4	90.3	1.0	0.5	0.5
Highest grade completed					xxx
11 or above	48.5	161.5	10.4	2.7	7.7 ***
9–10	27.1	233.6	13.0	1.7	11.3 ***
8 or below	23.8	147.9	1.7	0.6	1.1
Aid status (a)					
Applicant	11.5	70.7	9.6	3.8	5.9 *
Short–term recipient	17.0	111.7	12.3	4.4	7.9 ***
Long–term recipient	71.5	187.5	9.1	1.4	7.7 ***
Summary measure of disadvantagedness (b)					xx
Less disadvantaged	58.4	161.8	7.4	2.1	5.3 ***
Most disadvantaged	41.2	206.9	11.8	1.7	10.1 ***
Employed in prior year					
Yes	30.7	153.2	8.6	3.0	5.6 ***
No	68.9	179.7	9.4	1.5	7.9 ***
Age					xxx
24 or under	8.1	36.8	6.2	6.7	−0.6
25–34	42.5	174.0	12.7	2.9	9.8 ***
35–44	33.5	226.3	7.7	0.3	7.4 ***
45 or over	15.9	105.8	2.2	0.0	2.2 **
Sample size (total = 2,258)			1,207	1,051	

SOURCE: MDRC calculations using data from GAIN intake forms and the GAIN registrant survey.

NOTES: Sample characteristics were recorded on the intake form by GAIN staff at orientation, and are based on answers from GAIN registrants.

Calculations for this table used data for all survey responders, including those who did not participate in basic education.

(continued)

TABLE 5.2 (continued)

The follow-up period for the survey ranged from 26 to 37 months, on average, across Alameda, Los Angeles, Riverside, San Diego, and Tulare counties. Butte County was not included in the GAIN survey. See Appendix Table C.1 for further information on the follow-up period in each county.

All counties are weighted equally in the subgroup estimates.

A small proportion of cases are missing data on prior-year employment or highest grade completed. These cases are not included in the relevant subgroups. "Percent of sample" figures for these subgroups therefore will not sum to 100.0 percent.

Rounding may cause slight discrepancies in calculating sums and differences.

Sample members are missing CASAS test scores primarily because they were not proficient in English.

A two-tailed t-test was applied to differences between experimental and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

An F test was applied to differences among subgroups for each characteristic. Statistical significance levels are indicated as xxx = 1 percent; xx = 5 percent; x = 10 percent.

(a) Applicants are registrants who were applying for AFDC at the time of referral to GAIN orientation; they include reapplicants who may have had prior AFDC receipt. Short-term recipients had received AFDC for two years or less; long-term recipients had received AFDC for more than two years (the AFDC receipt may not have been continuous).

(b) The "most disadvantaged" individuals are those who did not have a high school diploma or GED, were long-term welfare recipients, and had no earnings in the prior year. The "less disadvantaged" category contains those who did not meet these criteria.

school, whether an earlier grade (9 or 10) or a later grade (11 or above).[11] The subgroup that had completed only grade 8 or below had no attainment impact.

The attainment impacts were more uniform for some other subgroups. Impacts were 5 percentage points or greater, and statistically significant, for AFDC applicants, short-term recipients, and long-term recipients; for those who had worked in the prior year and for those who had not; and for both the less and most disadvantaged groups. Within this cluster of subgroups, there was some tendency for sample members with shorter AFDC histories or better recent work records to have smaller impacts, especially the "less disadvantaged" subgroup. Impacts were primarily found for sample members between the ages of 25 and 44. For those under the age of 25, a significant number of control group members (7 percent) obtained a GED or a high school diploma on their own during follow-up, and GAIN did not produce results beyond this level.

Table 5.2 also shows that the impacts on total scheduled hours in ABE/GED were not especially large for the subgroups who experienced the largest educational attainment impacts. Indeed, the subgroups that scored 215 or above on either or both CASAS tests were scheduled for fewer total hours of education than those that scored below 215 on both CASAS tests. This indicates that differences in participation in basic education were not driving the subgroup impacts on receipt of a high school diploma or a GED. In other words, it cannot be said that the lower literacy subgroup failed to obtain impacts on credential receipt because they did not receive as much additional education as the higher literacy subgroups.[12]

In summary, the GAIN program produced impacts on receipt of a GED or a high school diploma mainly for those at higher initial literacy levels. These sample members achieved their relatively large impacts with smaller investments in amount of education received than those made by subgroups at lower initial literacy levels. The higher literacy groups may have had (or were very close to having) the academic skills needed to obtain a GED or a high school diploma, despite having dropped out of school. The GAIN program appears to have provided an accessible route for acquiring the specific knowledge needed to pass the GED test. The program may also have provided the necessary support services (such as child care), the moral support, or the "push" these individuals needed to obtain their credential.

---

[11] There are two reasons why the impacts were somewhat smaller for those who had completed grade 11 or above, compared to those who had completed only grade 9 or 10. First, a greater proportion of those who had completed grade 11 or above had a high school diploma or a GED at baseline: 44 percent of this group had such a credential at random assignment compared to 3 percent of those who had completed only grade 9 or 10. Impacts for these two subgroups are similar when only those who had *no* GED or high school diploma at random assignment are examined. (Impacts for other subgroups in Table 5.2 do not change notably when this subsample is used.) Second, the literacy levels (i.e., at random assignment) of those who had completed grade 11 or above were lower than those of sample members who had completed only grade 9 or 10. Some 22 percent of those who had completed grade 11 or above scored 215 or above on both CASAS tests, compared to 33 percent of those who had completed grade 9 or 10. Thus, for this sample, highest grade completed may not be a strong indicator of academic ability.

[12] The primary exception was those who did not have a CASAS score at baseline. Impacts on both participation levels and attainment were small for this subgroup. This is because many of those without a CASAS score were not proficient in English and were therefore unlikely to participate in ABE/GED or to receive a GED.

C. Explaining County Differences in Impacts on Educational Attainment

When examining the county differences in GED and high school diploma impacts, it is useful to consider two factors. The first is the extent to which the county GAIN programs were successful in obtaining credentials for those at different initial literacy levels. As shown in Table 5.3, all counties generally produced positive effects on GED or high school diploma receipt for those at higher literacy levels (although the results were not statistically significant in all counties). Alameda and Tulare stand out in the magnitude of their impacts for this group, with impacts of 29 and 40 percentage points, respectively. These two counties were also effective (though not as effective) in producing GED impacts for those who scored below 215 on one of the CASAS tests. As discussed in Chapter 3, the programs in these two counties placed a greater proportion of individuals in basic education services, encouraged individuals to move from ABE to GED activities, and provided a substantial amount of basic education to participants. These program features may have contributed to the relatively greater attainment impacts in these counties.

A second factor that affected the county programs' impacts on GED and high school diploma receipt was the educational need of the caseload served by each county, particularly the proportion of the caseload whose CASAS scores placed them at the higher or lower levels.[13] As noted in Chapter 2, Los Angeles served a very disadvantaged population. Only 9 percent of those determined to need basic education scored 215 or above on both CASAS tests, and one-third were non-English speakers. Los Angeles did achieve statistically significant GED and high school diploma impacts for those who scored 225 or above on the CASAS reading test (see Table 5.3). But since this was a small proportion of the entire Los Angeles sample, the effects for that sample were small. Because Los Angeles served a larger proportion of welfare recipients for whom attaining a credential might have been more difficult or might have taken longer than the follow-up period covered in this report, smaller impacts might have been expected there than in the other counties.

---

[13] For a distribution of the CASAS baseline reading and mathematics scores for the survey respondent sample in each county (i.e., the sample analyzed in this section), see Appendix Table B.2.

TABLE 5.3

FOR AFDC-FGs DETERMINED TO NEED BASIC EDUCATION: GAIN's IMPACTS ON CREDENTIAL RECEIPT WITHIN A TWO- TO THREE-YEAR FOLLOW-UP PERIOD, BY LITERACY LEVELS AT THE TIME OF RANDOM ASSIGNMENT AND BY COUNTY

	Impact on Percent Who Received GED or High School Diploma During Follow-up Period				
Test and Literacy Level	Alameda	Los Angeles	Riverside	San Diego	Tulare
Score on CASAS reading test		xxx			xxx
225 or above	12.0 ***	10.6 **	4.8	10.0 **	30.4 ***
215-224	4.0	0.0	-1.2	0.0	12.1 **
214 or below	3.7	0.0	0.0	0.0	3.2
No score	0.0	0.0	-0.3	0.0	2.9
Score on CASAS math test	xxx			xx	xxx
215 or above	28.3 ***	7.1	6.8	14.7 *	37.1 ***
214 or below	4.0 **	3.6	1.2	1.0	11.3 ***
No score	0.0	0.0	-0.3	0.0	2.9
Score on both CASAS tests	xxx	x		xx	xxx
215 or above on both	28.5 ***	8.3	7.1	14.7 *	40.1 ***
214 or below on one	4.1 **	5.9	1.5	1.5	12.8 ***
214 or below on both	3.8	0.0	0.0	0.0	3.9
No score	0.0	0.0	-0.3	0.0	2.9
Sample size					
Experimentals	225	187	388	191	216
Controls	241	202	194	189	225

SOURCE: MDRC calculations using data from GAIN intake forms and the GAIN registrant survey.

NOTES: Sample characteristics were recorded on the intake form by GAIN staff at orientation, and are based on answers from GAIN registrants.

Calculations for this table used data for all survey responders, including those who did not participate in basic education.

The follow-up period for the survey ranged from 26 to 37 months, on average, across the five counties. Butte County was not included in the GAIN survey. See Appendix Table C.1 for further information on the follow-up period in each county.

A two-tailed t-test was applied to differences between experimental and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

An F test was applied to differences among subgroups for each literacy level. Statistical significance levels are indicated as xxx = 1 percent; xx = 5 percent; x = 10 percent.

The GAIN populations in Alameda and San Diego were at somewhat higher initial literacy levels: 17 and 25 percent scored 215 or above on both CASAS tests, respectively. Unlike Alameda, and consistent with the GAIN regulations, San Diego did not assign many registrants who completed ABE to GED programs. Those in ABE programs in San Diego completed the basic education program when they received a score of at least 215 on the CASAS reading and mathematics tests, at which point they were usually referred to a job search activity, not to GED classes. This may have contributed to the lack of GED impacts for those at lower initial literacy levels in San Diego.

Tulare also had a larger-than-average proportion of registrants (28 percent) scoring 215 or above on both CASAS tests. However, as shown in Table 5.3, Tulare was more successful in achieving GED impacts for this group than were the other counties. This may indicate that the package of education-related services offered in Tulare – the GAIN program's emphasis on education, the counseling and close monitoring GAIN provided, and the education services offered by the education providers – contributed to the large attainment impacts in Tulare.

Riverside had the largest proportion of sample members who scored 215 or above on both CASAS tests (31 percent), but it did not produce statistically significant impacts on credential receipt for this group. This result may have been due to Riverside's emphasizing quick employment more than completion of basic education activities.

In sum, the differences across counties in impacts on GED and high school diploma receipt are associated with differences in baseline literacy levels, but were primarily due to differences in the effectiveness of the county GAIN programs for individuals at different initial levels of literacy. Tulare's very high impacts were partly attributable to its having had a relatively large proportion of GAIN registrants at initially higher literacy levels. However, Tulare and Alameda were both distinguished by the greater success they had for both higher and lower literacy subgroups.

II. Impacts on Educational Achievement

Educational attainment, as measured by receipt of a GED or a high school diploma, is not the only measure of success in basic education programs. Some GAIN registrants could have acquired the basic skills generally needed to participate in the labor force without receiving such a credential. Moreover, a central goal of the GAIN program is to provide individuals with the human capital they need to get and hold jobs, which includes mastery of basic reading and mathematics skills. This section examines achievement gains resulting from the GAIN program, as measured by a basic skills test.

The basic skills tests used in the analysis are the document literacy and quantitative literacy sections of the Test of Applied Literacy Skills (TALS), which was developed by the Educational Testing Service (ETS).[14] Both experimentals and controls took the tests approximately two to three years after random assignment as the last part of the survey interview. As already noted, the tests were administered in all of the research counties except Butte: Alameda, Los Angeles, Riverside, San Diego, and Tulare. AFDC-U registrants were not included in the TALS testing.

A. Interpretation of the TALS and TALS Scores

The TALS attempts to measure individuals' skills in understanding and using printed and written information needed to manage everyday life. This definition of literacy implies a set of information-processing skills that go beyond the decoding and comprehension of texts used in some other standardized tests. The TALS was designed to measure skills needed outside purely academic settings, i.e., skills required for effective functioning in the workplace and in a complex technological society.

The two sections of the TALS used in the GAIN evaluation were designed to measure somewhat different literacy skills. The document literacy test, as its name implies, was designed to measure skills needed to work with documents. This test requires readers to use schedules, charts, graphs, maps, and forms. Performance on this test reflects knowledge associated with finding and transferring information given in one document to another. For example, one test item asks the respondent to read a line graph of car prices and to determine when the cost of a car was at its highest.

On the quantitative literacy test, a respondent must read text and perform arithmetic operations such as addition, subtraction, multiplication, or division, either singly or in combination, using numbers or quantities that are embedded in printed information. For example, an item in this test asks for the daily wage to be calculated from a want ad listing an hourly wage.

The tests are not multiple choice; they require the test-taker to write in the answer. In scoring, the number of correct items is converted into a scale score that ranges from 0 to 500. ETS intends TALS scale scores to be interpreted as reflecting five literacy levels. It is not possible or appropriate to translate these test scores into grade-level equivalents.

A description of the literacy skills associated with each of the five literacy levels is provided in Table 5.4 (for document literacy) and Table 5.5 (for quantitative literacy). Individuals estimated to be

---

[14] There are three sections of the TALS, focusing on three different types of literacy: document literacy, prose literacy, and quantitative literacy. The prose literacy test was not used in the present study. For detailed information about the TALS, see Kirsch, Jungeblut, and Campbell, 1992, and Kirsch and Jungeblut, 1992.

TABLE 5.4

DESCRIPTION OF LITERACY LEVELS ON TALS DOCUMENT TEST

Level and Score Range	Description of Tasks Required by Test Items (a)	Examples of Test Tasks (b)
Level 1 0-225	Tasks at this level are the least demanding. They typically require the reader to make a literal match between a single piece of information stated in a question and information provided in text, or to enter information from personal knowledge.	Enter account information on a bank's savings withdrawal form. (200)
Level 2 226-275	Tasks at this level also involve a single piece of information; however, several plausible choices for matching that are not correct may be presented. Also, the match may not be literal and may require drawing inferences from the text.	Using a line graph of car prices, determine when the price of a particular car peaked. (268)
Level 3 276-325	Tasks require the matching of more than two pieces of information. The information is presented in more complex displays and is more subtly differentiated.	Using a hospital campus map and its legend, identify a building that houses a specified medical department. (288)
Level 4 326-375	Tasks require multiple-feature matching and integrating information from complex displays; however, the degree to which the reader must draw inferences is increased from the previous level.	Circle information relating to rates on a page from a telephone book. (358)
Level 5 376-500	Tasks require a high degree of inferential reasoning and integrating information from several sources. Tasks at this level require the ability to process information with a high degree of consistency using several documents.	Interpolate information on a line graph to determine profits in a specified year. (408)

SOURCE: Descriptions of literacy levels are adapted from Kirsch, Jungeblut, and Campbell, 1992; the examples of test tasks are from Educational Testing Service, 1992.

NOTES: (a) A person at a given literacy level has an 80 percent or greater chance of performing tasks of the level's type correctly.

(b) The difficulty of actual test items that require these operations is shown in parentheses.

TABLE 5.5

DESCRIPTION OF LITERACY LEVELS ON TALS QUANTITATIVE TEST

Level and Score Range	Description of Tasks Required by Test Items (a)	Examples of Test Tasks (b)
Level 1 0-225	Although there are no tasks on the test at Level 1, experience indicates that individuals at this level can perform addition and subtraction when the numbers are entered in a column format or the operation does not require the reader to borrow or carry.	There are no tasks at this level on the test. All test items include text as well as arithmetic operations.
Level 2 226-275	Tasks at this level require a single arithmetic operation involving numbers that are either stated in the question or easily identified in the document.	Total the points accrued for several driving violations using a chart describing the point system. (273)
Level 3 276-325	Tasks require a single arithmetic operation; however, the reader must identify two or more numbers from various places in the document needed to solve the problem. Also, the operations needed to complete the task are indicated by phrases such as "how many" rather than explicitly stated.	Determine the total cost for an order after calculating the cost of two items and tax. (300)
Level 4 326-375	Tasks at this level require two or more sequential operations or the application of a single operation for which either the quantities or the operation cannot be easily determined.	Calculate a ratio using figures found in a pie chart depicting population data. (346)
Level 5 376-500	These tasks are the most demanding and require the reader to perform multiple operations. To determine the quantities and operations to complete a task, the reader must identify appropriate features of a problem from various parts of the document or rely on background knowledge.	Calculate the tax owed, using a schedule with a base rate and a percentage above this rate. (396)

SOURCE: Descriptions of literacy levels are adapted from Kirsch, Jungeblut, and Campbell, 1992; the examples of test tasks are from Educational Testing Service, 1992.

NOTES: (a) A person at a given literacy level has an 80 percent or greater chance of performing tasks of the level's type correctly.

(b) The difficulty of actual test items that require these operations is shown in parentheses.

performing at the indicated level can complete the specified tasks with a high degree of consistency – 80 percent of the time. Consider as an example a person who is performing at the 250 level on the document scale. This individual can be expected to perform tasks that are rated at this level correctly eight out of ten times, i.e., with an 80 percent probability of performing them correctly. This same individual would be expected to respond correctly to an item at the 300 level 40 percent of the time and could perform tasks at the 200 level with more than a 90 percent probability of responding correctly.[15]

The TALS document literacy test contains 26 items, the difficulty of which ranges from 179 to 408 on the test scale. The difficulty of each question reflects the number of categories or features of information in the question, the number of distractors or plausible answers, the degree to which the test question is obviously connected with the information stated in the document, and the complexity of the document. As illustrated by Table 5.4, the easiest questions are those that require individuals to directly match a single piece of information in the question and text (e.g., to enter the account information on a savings withdrawal form). More difficult tasks require respondents to engage in a series of matches or to compare and contrast information in adjacent parts of the document (e.g., to use a map and its legend to locate a building).

The TALS quantitative literacy test contains a total of 23 items, the difficulty of which ranges from 273 to 396 on the test scale. Unlike traditional quantitative tests, these tasks give a critical role to the processing of printed text, requiring reading skills in addition to mathematics skills. As shown in Table 5.5, the easiest items are those in which the numbers and required operations are made explicit. The tasks become increasingly difficult as numbers must be located and extracted from complex documents and when the required mathematical operations must be inferred (e.g., to calculate ratios from a pie chart). Overall, the difficulty of the items is determined by the particular arithmetic operation called for, the number of operations needed to perform the task, the extent to which the numbers are embedded in printed materials, and the extent to which an inference must be made to identify the type of operation to perform.

The TALS was chosen to measure achievement outcomes in the GAIN evaluation after a review of 10 leading achievement tests and after consultation with experts. The TALS was chosen with the aim of measuring basic literacy skills related to employment, since employment is the ultimate goal of the GAIN program. The emphasis of the TALS on life skills materials and competencies was considered more appropriate for measuring the skills of GAIN registrants than a more academic test, given the goals of the GAIN program. TALS was also selected for its high internal reliability and its use in national studies, which allows comparisons of the literacy levels of the GAIN population to those of other groups (as shown below). It is important to understand that these tests were not used by the county education programs in this study to gauge student progress. Thus, the schools were not teaching the specific items in these tests.

---

[15] Kirsch and Jungeblut, 1992, pp. 85-86.

B. A Comparison of the Literacy Levels of GAIN Registrants and Other Populations

Tests using the same kinds of items and literacy scales as the TALS have been employed in studies of the basic skills levels of other populations including JTPA applicants, participants in the Employment Service (ES) and Unemployment Insurance (UI) programs, a national sample of young adults ages 21 to 25, and, most recently, a national sample of adults ages 16 to 64.[16] These results provide comparisons that are useful for characterizing and interpreting the literacy levels of the GAIN population. To provide a context for interpreting the effects of GAIN on achievement levels, the literacy levels of the GAIN control group are compared to those of other populations. The control group's test scores provide benchmarks for interpreting the literacy levels of this group of welfare recipients in the absence of GAIN.

Table 5.6 reports on the distribution of test scores for these different populations and for GAIN controls. To enhance the comparability of the results, the scores are reported for sample members from the other studies who did not have a high school diploma or a GED. (This was a slightly different group from the GAIN controls, who either did not have one of these credentials *or* scored below 215 on either CASAS test.) Although this difference in sample definition should be noted, as Table 5.6 reports, an interesting distinction between GAIN controls and other populations is that the former made up a relatively larger segment of the overall GAIN population (66 percent) than the others did of their overall populations (ranging from 12 to 33 percent). When one considers only those who lacked a high school diploma or a GED, the literacy levels of GAIN control group members who were determined to need basic education were similar to those of other populations lacking a high school diploma or a GED: 29 to 53 percent of these samples were at the most basic level (Level 1) on both the document and quantitative tests, and roughly three-quarters or more were at Levels 1 or 2.[17] Compared to most other populations, the GAIN controls scored somewhat lower on the quantitative literacy test. Overall, the

---

[16] See Kirsch and Jungeblut, 1992; Kirsch et al., 1993.

[17] The national sample of adults ages 16 to 64 had a relatively large proportion of sample members at Levels 1 and 2 of the TALS, in part because that sample included immigrants who were not proficient in English and individuals who were still in high school.

TABLE 5.6

TALS LITERACY LEVELS OF GAIN CONTROL GROUP MEMBERS AND SELECTED POPULATIONS WITH NO HIGH SCHOOL DIPLOMA OR GED

TALS Literacy Level	GAIN Controls	JTPA Applicants	ES/UI Applicants	Adults, Ages 21–25	Adults, Ages 16–64
Percent with no high school diploma or GED	65.5 (a)	33.4	18.3	12.4	27.1
For those with no high school diploma or GED					
Percent at Level 1 on					
Document literacy test	28.9	29.3	37.7	34.3	52.8
Quantitative literacy test	40.5	30.3	34.7	30.6	51.9
Percent at Level 2 on					
Document literacy test	48.6	45.3	35.7	39.3	29.9
Quantitative literacy test	33.8	40.5	38.6	36.7	28.5
Percent at Level 3 on					
Document literacy test	18.6	22.7	23.7	22.5	14.4
Quantitative literacy test	23.5	24.2	22.7	28.4	15.1
Percent at Level 4 on					
Document literacy test	3.9	2.9	2.9	3.7	2.9
Quantitative literacy test	2.2	5.0	3.5	3.2	3.7
Percent at Level 5 on					
Document literacy test	0.0	0.0	0.1	0.1	0.2
Quantitative literacy test	0.0	0.0	0.5	0.9	0.2

SOURCE: Calculations from Kirsch and Jungeblut, 1992; Kirsch et al., 1993; and MDRC calculations using GAIN TALS data.

NOTES: The sample of GAIN controls consists of those who did not have a high school diploma or GED or who scored below 215 on either CASAS test at random assignment. For the other populations, the sample consists of only those without a high school diploma or GED.

"GAIN controls" consist of the 522 control group members from the TALS respondent sample.

"JTPA applicants" consist of 881 eligible JTPA applicants without a high school diploma or GED from 14 states.

"ES/UI applicants" consist of 620 Employment Service participants and Unemployment Insurance claimants without a high school diploma or GED from 16 states.

"Adults, ages 21–25," consists of a national random sample of 583 adults, ages 21–25, without a high school diploma or GED.

"Adults, ages 16–64," consists of a national random sample of 6,451 adults, ages 16–64, without a high school diploma or GED.

Distributions may not add to 100.0 percent because of rounding.

(a) This estimate is the average across the five research counties, with each county weighted equally. Butte County is not included because it was not part of the TALS sample or analysis.

table illustrates that, across the different groups, individuals without a high school diploma were consistently at very low literacy levels, as measured by the TALS.

An ETS study described individuals at Levels 1 and 2 as possessing relatively low-level information-processing skills and stated that they would probably face "severe restrictions on full participation in the workplace."[18] Individuals at Levels 4 and 5, in contrast, demonstrate proficiencies useful for coping with complex printed or written material or for using text and two or more sequential arithmetic operations. The study states that these skills should be valuable resources for many types of jobs.

The same ETS study examined the literacy levels attained by successful job-seekers in various occupations.[19] For the ES/UI population, the average document literacy score of service workers was the lowest, 262. This is within the range of scores that constitutes Level 2. Machine operators and laborers were also at Level 2. Average scores for clerical positions fell at the low end of Level 3, while scores for technical, professional, and managerial positions were at the upper end of that level. Overall, it appears that a large segment of the GAIN population may have scores that are below average for these types of positions.

In sum, the literacy levels of the GAIN population indicate that, in the absence of any intervention, many of these welfare recipients are functioning at a low level – although it is a level similar to that of other populations without a high school diploma. The next subsection explores the effects the GAIN program had on literacy levels.

C. TALS Score Impacts

This subsection presents estimates of the impacts of GAIN on the achievement test scores for the TALS document and quantitative literacy tests. It compares scores for experimental group sample members with those for control group sample members. The differences between the two constitute the estimates of GAIN's impacts on TALS scores. A comparison is given of the achievement test scores of experimentals and controls for all counties combined, within each county, and within each of several subgroups of the research sample.

Before beginning the analysis, it is important to consider what elements of GAIN might increase TALS scores. In particular, it is important to note that basic education is the only component of GAIN specifically intended to achieve impacts on literacy. Unlike impacts on earnings and AFDC payments, impacts on literacy levels were not an explicit goal of non-education activities such as job search. Likewise, sanctioning and other program actions on nonparticipants may lead to impacts on AFDC payments and even on earnings but would not appear likely to raise literacy test scores, although it is possible that some kinds of employment may have the side effect of improving the ability to score well on the TALS. In general, however, it would be prudent and in line with the design of GAIN to assume that any TALS score impacts for those determined to need basic education will come almost entirely from participation in basic education.

---

[18] Kirsch, Jungeblut, and Campbell, 1992, p. 8.

[19] Information on what literacy levels specific jobs require is not available. Therefore, it is difficult to determine what types of jobs individuals at various literacy levels could obtain.

Consequently, any impacts on the average TALS scores for the entire sample of GAIN registrants in a county or group must be the product of the increase in the rate of basic education participation in the county or group and the average impact per participant. The results in this section are stated as average impact per experimental sample member. They are not estimates of the average impact per education *participant*. Since basic education nonparticipants are not expected to obtain TALS score impacts, however, the impact per participant will be several times the measured impact per experimental. This poses no conceptual difficulty because the TALS score impacts will be directly comparable to other impacts measured per experimental. It does, however, present a particularly sharp statistical difficulty: Participants in basic education may have experienced TALS score impacts, but the effect may not be seen for the sample as a whole if basic education participation rates within the experimental group were not high enough. For example, if the impact on a *participant* in basic education was to raise a TALS score by 10 points, on average, and the experimental-control difference in participation in basic education was 0.30 (i.e., 30 percentage points), then the impact per experimental was 0.30 x 10 = +3 points. This will be too small to attain statistical significance with the sample size available, even though the 10-point impact on participants may be of policy significance. Technically, this problem would be described as a problem of "statistical power" rather than a problem of bias.[20]

A complete analysis might therefore proceed in two steps. The first step, which is taken in this report, is to look for TALS score impacts on the full sample of experimentals and controls – basic education participants and nonparticipants combined. This analysis will be called "experimental" because it is based on the fundamental comparison of randomly assigned program and control groups. This analysis will reveal TALS score impacts of moderate to large magnitude. It will not reliably reveal TALS score impacts that are small but might still affect future earnings.[21] A second step, which is beyond the scope of this report, would be to attempt to estimate TALS score impacts directly on participants within the experimental group. This second step, which was not part of the original evaluation plan,[22] might help determine whether participants obtained modest TALS score impacts but were too few in number for those impacts to show up in the full sample. This analysis may be called "nonexperimental" because it is not based on a comparison of two randomly assigned groups. It is, instead, based on a comparison of basic education participants in the experimental group with basic education nonparticipants in the experimental group.

---

[20] To carry the illustration further, suppose that the possible statistical error of the impact per experimental is +/- 5 points. The +3 experimental estimate would then have a range of possible error of -2 to +8, which includes zero (i.e., no impact). The impact per participant, if that could be estimated directly, might have a range of possible error of +5 to +15. Translated back into the per experimental basis, this would yield a range of possible error of +1.5 to +4.5 (i.e., +5 x 0.30 to +15 x 0.30). This range is narrower than the original -2 to +8 and does not include zero.

To summarize the experimental results: Large impacts on TALS scores were found in San Diego, but no evidence of TALS score impacts was found for any other county. It was also found that TALS score impacts accrued almost entirely to sample members who scored highest on the CASAS tests given just prior to random assignment. The exact magnitude of the impacts in San Diego and among the high CASAS scorers is uncertain, however, owing to the small sample sizes in each county and each subgroup. Much smaller differences in TALS score impacts were found between sample members classified as "most disadvantaged" and sample members of less disadvantagedness. Finally, only a very weak correlation was found across counties and across subgroups between the number of additional hours of participation in basic education produced by GAIN and increases in TALS scores. Counties and subgroups for which increases in basic education hours were relatively large did not necessarily have large impacts on TALS scores.

1. **Analysis issues.** As discussed in Chapter 2, the TALS analysis sample was a subset of sample members selected for the follow-up survey. Some effort was made to choose the TALS sample so as to minimize the number of individuals who would not be able to take the test because they were not proficient in English and to maximize the number who would have participated in basic education. Thus, although the TALS sample was less representative of the impact sample than was the survey sample as

---

[21] The sample sizes available are sufficient to detect reliably about a 0.4 standard deviation impact on TALS score per education participant. This power calculation assumes a two-tailed t-test, at statistical significance level 0.10, with power 0.80, and R-square 0.36 (estimated from an all-county combined TALS score regression).

[22] The experimental analysis was not part of the original evaluation plan, either. The original GAIN survey did not incorporate a literacy test. That was added later. But the existence of randomly assigned experimental and control groups made it relatively straightforward to add the TALS and compare scores for experimentals and controls. A nonexperimental analysis would not be straightforward.

a whole, the TALS sample makes it possible to capture more accurately the TALS score impacts associated with participation in basic education activities, particularly ABE and GED activities.

Appendix Table E.1 shows the participation rates in selected activities for the TALS sample, using self-reported information from the survey. It indicates that participation rates were somewhat higher for the TALS sample than for the overall sample. For the TALS sample, 36 percent of experimentals and 5 percent of controls participated in ABE/GED activities, for an overall difference of 31 percentage points. The comparable increment for the whole sample was 24 percentage points, with 30 percent of experimentals and 6 percent of controls having participated in ABE/GED activities (see Table 4.1). The TALS sample was slightly more likely to participate in job search but participated to the same degree in work experience (see Tables E.1 and 4.2).

TALS scores were analyzed for 1,115 respondents. This represented a response rate of 65 percent among those slated to be given the TALS. An analysis of differences between TALS respondents and nonrespondents may be found in Appendix A. In brief, this analysis found that, compared to nonrespondents, TALS respondents had longer welfare histories and were more likely to be categorized as "most disadvantaged." TALS score impacts based on the respondent sample nevertheless appear to represent closely the impacts for the full sample of respondents and nonrespondents. The all-important comparison between experimentals and controls who took the TALS revealed only the expected differences in distribution across counties plus some differences across ethnicity categories, both of which were corrected by regression adjustment. Thus, comparing the TALS scores of experimentals and controls should give unbiased, internally valid estimates of GAIN's impacts on achievement.

Two forms of TALS scores are analyzed: numerical scores and TALS score categories (i.e., literacy levels). Impacts on numerical scores are stated both as absolute numerical effects and as percents of the standard deviation of the test score calculated for all controls in the research sample.[23] Stating impacts as a "percent of standard deviation" is particularly important for achievement tests because the absolute score impact cannot be judged large or small without reference to some unit of measurement. For example, a test score impact of 25 would be considered small if it were 2 percent of a standard deviation but large if it were 25 percent of a standard deviation. Impacts as a percent of standard deviation can also be compared across the two TALS tests in this study and between this and other studies.

---

[23] Standard deviations were computed for the sample of all controls with follow-up TALS scores, with all counties weighted equally.

2. **TALS score impacts by county and subgroup.** Table 5.7 presents number of scheduled hours of basic education and TALS scores for the sample of test-takers in all counties, for each county and for two sets of subgroups. Hours and scores are given as averages for experimentals and controls and as the difference between averages, which is the estimate of GAIN's impact.[24] Averages for hours of basic education count zero for nonparticipants. The TALS score presented is the sum of scores on the document and quantitative tests. The separate results for document and quantitative literacy tests parallel those for the combined score (see Appendix Table E.2).

Estimates of total scheduled hours of basic education for the counties for the TALS respondent sample differed slightly from those for the full survey respondent sample determined to need basic education shown in Table 4.5. The relative positions of counties are virtually identical across the two samples, however. Among the TALS respondent sample, Los Angeles increased hours of basic education the most, and Riverside increased them the least. The Riverside increase was quite small and was the only increase that was not statistically significant. The other three counties constituted a middle range, clustering around an increase of about 200 hours of basic education participation per experimental sample member, on average.

Among counties, impacts on TALS scores were found only for San Diego. Combined document and quantitative literacy scores averaged 454 for controls and 488 for experimentals, for a statistically significant impact, of 33.8 points. This impact represents a gain of 35.6 percent of a standard deviation, a large impact, given that the estimate combined basic education participants and nonparticipants. None of the other county impact estimates were statistically significantly different from zero, with the exception of a negative TALS score impact in Riverside. The negative estimate in Riverside may not fully reflect a real program effect but may, instead, have been artificially magnified by an experimental-control difference in the percentage of each research group that took the TALS test. A difference in test-taking between research groups was large and statistically significant only in Riverside and may have created unmeasured differences in the characteristics of experimentals and controls in the TALS sample in that county (see Appendix A). The pooled estimate of TALS score impacts for all counties was close to zero

---

[24] Estimates are regression-adjusted, controlling for pre-random assignment demographic characteristics and baseline CASAS scores. All results were obtained from regressions on the entire TALS respondent sample. Full-sample estimates give each county equal weight. County and subgroup "difference" estimates were obtained from dummy variables, which are the cross products of experimental group status and county or subgroup. County and subgroup estimates are unweighted.

TABLE 5.7

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's TWO– TO THREE–YEAR IMPACTS ON TALS SCORES, BY COUNTY AND SELECTED CHARACTERISTICS AT THE TIME OF RANDOM ASSIGNMENT

		Total Scheduled Hours in ABE/GED			TALS Score: Document Plus Quantitative			
Characteristic and Subgroup	Percent of Sample	Experimentals	Controls	Difference	Experimentals	Controls	Difference	Difference/ Standard Deviation (a)
All counties	100.0	251	32	219 ***	475	473	1.8	1.9%
County				xxx			x	
Alameda	30.0	256	22	235 ***	482	480	2.3	2.5%
Los Angeles	16.7	424	61	364 ***	449	445	3.7	3.9%
Riverside	20.9	100	27	73	488	507	-19.0 * (b)	-20.0%
San Diego	10.2	233	46	187 ***	488	454	33.8 **	35.6%
Tulare	22.2	244	7	237 ***	468	478	-10.2	-10.8%
Baseline score on CASAS reading and math tests							xxx	
215 or above on both	27.6	199	0 (c)	206 ***	544	526	17.8 *	18.7%
214 or below on one	49.2	232	38	194 ***	478	476	2.2	2.3%
214 or below on both	20.1	329	17	311 ***	388	406	-17.1	-18.0%
No score	3.0	252	12	240 *	365	466	-101.0 ***	-106.4%
Most disadvantaged (d)				xx				
No	56.9	189	15	174 ***	480	486	-6.0	-6.4%
Yes	43.1	314	29	285 ***	469	463	5.9	6.2%
Sample size (total = 1,115)		595	520		595	520		

SOURCE: MDRC calculations using data from GAIN intake forms, the GAIN registrant survey, and the TALS.

NOTES: Sample characteristics were recorded on the intake form by GAIN staff at orientation, and are based on answers from GAIN registrants.

Calculations for this table used data for all TALS respondents, including those who did not participate in basic education. The sample includes AFDC–FG sample members from Alameda, Los Angeles, Riverside, San Diego, and Tulare. Butte County was not included in the TALS sample. Four sample members who took the TALS were not included in this table because they were missing identifying information. The TALS was administered with the registrant survey, 26 to 37 months after GAIN orientation, on average, across the five counties. See Appendix Table C.1 for further information on the follow–up period in each county.

Sample members are missing CASAS test scores primarily because they were not proficient in English.

Estimates are regression–adjusted using ordinary least squares, controlling for pre–random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences.

The "all county" estimate is from a regression in which each county is weighted equally. County and subgroup estimates are unweighted.

A two–tailed t–test was applied to differences between experimental and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

An F test was applied to subgroup differences in "difference" estimates. Statistical significance levels are indicated as xxx = 1 percent; xx = 5 percent; x = 10 percent.

(a) The standard deviation of the outcome measure is for all controls, with counties weighted equally.

(b) The negative estimate in Riverside may have been affected by differences in the percentage of experimentals and controls who took the TALS and who therefore could be included in the TALS impact sample. Such differences in test–taking were statistically significant only in Riverside.

(c) The adjusted control mean is actually slightly negative.

(d) The "most disadvantaged" individuals are those who did not have a high school diploma or GED, were long–term welfare recipients, and had no earnings in the prior year.

and was not statistically significant.[25] The all-county estimate of the TALS score impacts, from a regression in which Riverside was excluded and the other four counties were weighted equally (not shown in the table), was 6.9 points, not statistically significant. The variation in TALS score impacts across the five counties was statistically significant, reflecting the quite large differences between San Diego on the high end and Riverside and Tulare on the low end. These cross-county differences could not be explained by demographic and CASAS score differences among sample members in the TALS respondent samples across counties.[26]

The county differences would appear instead to reflect differences in the implementation of the basic education component across counties. The relevant differences in implementation do not appear to be linked strongly to the absolute level or the experimental-control increment in hours of basic education, however. The greatest absolute amount of, and increment in, basic education participation was seen in Los Angeles, but that county had a TALS score impact close to zero. Alameda and Tulare had experimental-control differences in hours of basic education that were slightly greater than those in San Diego, but they did not have measurable TALS score impacts. Across counties, the simple correlation coefficient between the experimental-control difference in hours of basic education and the experimental-control difference in TALS scores was +0.25, indicating a weak relationship. That leaves the nature, organization, and quality of basic education as factors that could explain the observed county difference in TALS score impacts.[27]

Breaking the sample into baseline CASAS score subgroups reveals a concentration of TALS score impacts among registrants with greater literacy levels at the time of random assignment. Sample members who passed both CASAS baseline tests, representing 27.6 percent of the total sample, obtained a large impact. Combined TALS scores for controls in this subgroup averaged 526, well above controls in the other subgroups. But experimentals in this subgroup reached 544 on the TALS, for a statistically significant impact of 17.8 points, a gain of 18.7 percent of a standard deviation. Impacts for this subgroup were found mostly in San Diego (not shown in the table), although small and not statistically significant TALS score impacts were found outside San Diego for sample members who passed both baseline CASAS tests.

---

[25] Appendix Table E.2 shows a statistically significant impact of 4.5 percentage points for all counties pooled in the number achieving TALS Level 3, 4, or 5. However, 3.6 of the 4.5 percentage points were contributed by San Diego.

[26] Conditional impact estimates were obtained for the counties by adding to the impact regression terms for the interaction of subgroup membership with the experimental status dummy variable. The resulting county TALS impact estimates were quite similar to the unconditional county impact estimates shown in the table. The two sets had a simple correlation coefficient of +0.99.

[27] These results do not necessarily mean that more time in basic education does not increase the impact of basic education. The results may merely mean that quality of education is important and is not *necessarily* associated with duration of education. Long basic education programs may not always be high-quality programs. But high-quality basic education may have greater effects the longer students attend. In addition, high-quality basic education may achieve more in a short time than lower-quality basic education might achieve over a longer period of participation.

Table 5.7 also shows that control group average TALS scores decreased with performance on the CASAS baseline tests, as would be expected. TALS score impacts also decreased, however. Sample members who passed only one CASAS obtained a 2.2 point TALS impact, which was not statistically significant. Sample members who failed both CASAS tests obtained a negative but not statistically significant estimate. The small group without a CASAS test score, 3.0 percent of the sample, obtained a large negative estimate for the TALS score impact. The variation in TALS score impacts across CASAS subgroups was statistically significant. The magnitude of impact was not related to the increment in hours of basic education, however. The subgroup that scored 215 or above on both baseline CASAS tests had a relatively small hours difference and a large TALS impact; the subgroup that scored below 215 on both CASAS tests had the largest hours difference and a negative TALS effect. The simple correlation coefficient between incremental hours and TALS impact was -0.85, excluding the "no score" subgroup (-0.26 including the "no score" subgroup), indicating that hours invested in basic education were largest for the subgroups with the smallest TALS impacts.

These findings suggest that GAIN had the most difficulty raising TALS scores for individuals who started out at relatively low literacy levels. Those at the top of the CASAS distribution for this population were able to achieve TALS impacts and took less than the average time in basic education to do it. Those at the bottom of the CASAS distribution had difficulty achieving TALS score impacts, even when they spent substantially more time in basic education.

This pattern of CASAS subgroup results was driven by San Diego. In that county, TALS score impacts for the passed both, passed one, failed both, and no score subgroups were +79.3, +29.7, -23.7, and -113.8, with the first estimate being statistically significant. Experimental-control differences in basic education hours within San Diego for the same subgroups were +186, +9, +421, and +401, with the first and third estimates being statistically significant. Thus, as for the sample as a whole, TALS score impacts in San Diego decreased in moving down the CASAS baseline subgroups, and the largest increments in basic education hours came for the subgroups with the smallest TALS score impacts. This pattern strengthens the conclusion that the bottom CASAS subgroups had difficulty improving their TALS scores, even with considerable basic education and even in the county with positive and statistically significant TALS score impacts.[28]

At the bottom of the table, results for a "most disadvantaged" subgroup are presented. These are sample members who were long-term AFDC recipients, without employment in the year prior to random assignment and with no high school diploma or GED when they were randomly assigned. This subgroup would be predicted to have had relatively low follow-up rates of employment and long future AFDC receipt. In addition, as discussed in previous chapters, the table indicates that basic education hours and incremental basic education hours were larger for the most disadvantaged, suggesting that GAIN registrants who will be on AFDC a long time tend to spend more time in basic education. TALS score impacts were also somewhat larger for the most disadvantaged, but neither impact was statistically significant, and the difference in impacts between the two subgroups was not statistically significant either. This result does suggest that work and welfare history and diploma status may be less important in predicting academic success than baseline measures of actual academic achievement such as the CASAS.

Table 5.8 shows details of TALS score impacts for San Diego. The table indicates that quite similar TALS score impacts were achieved in both the document and quantitative literacy tests: 16.0 points and 17.9 points, respectively (both statistically significant). The table also shows that the effect was primarily to move people from TALS Level 1 into Levels 2 and 3 on the document literacy test and into Level 3 on the quantitative literacy test. According to the ETS research discussed in the previous section, this shift represents an improvement from having a severe labor market handicap to a level possessed by many employees in service, clerical, and other low-skills occupations. Overall, in San Diego, there was an 18.2 percentage point increase – nearly a doubling – in the number of experimentals scoring at TALS Levels 3 through 5 on either test.[29]

---

[28] For counties other than San Diego, the TALS score impacts for the passed both, passed one, failed both, and no score subgroups were +7.7, +0.2, -16.5, and -108.1, with only the last being statistically significant. Experimental-control differences in basic education hours were +210, +209, +295, and +224, all statistically significant.

[29] The shift out of TALS Level 1 in San Diego was unexpected, given the concentration of TALS score impacts in the subgroup that scored 215 or above on both baseline CASAS tests. This may reflect some random error stemming from the small sample sizes for the counties and subgroups. It suggests that some controls in the subgroup that scored 215 or above on both baseline CASAS tests scored worse on the TALS in San Diego than in other counties. If so, the TALS score impact estimated for San Diego would exceed the actual impact of the program in that county.

TABLE 5.8

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's TWO– TO THREE–YEAR IMPACTS ON TALS SCORES IN SAN DIEGO COUNTY

Test and Score	Experimentals	Controls	Difference
Document and quantitative literacy tests			
Combined average score	488	454	33.8 **
(difference/standard deviation) (a)			35.6%
Scored at (%)			
Levels 3–5 on both	14.6	17.1	–2.5
Levels 3–5 on either	41.9	23.8	18.2 **
Document literacy test			
Average score	245	229	16.0 *
(difference/standard deviation) (a)			30.6%
Scored at (%)			
Level 1	27.1	34.7	–7.7
Level 2	48.0	44.8	3.2
Level 3	21.9	18.3	3.6
Level 4	3.1	2.1	1.0
Level 5	0.0	0.0	0.0
Scored at (%)			
Levels 1–2	75.0	79.6	–4.5
Levels 3–5	25.0	20.4	4.5
Quantitative literacy test			
Average score	243	225	17.9 **
(difference/standard deviation) (a)			36.3%
Scored at (%)			
Level 1	36.9	49.8	–12.9
Level 2	31.6	29.7	1.8
Level 3	28.6	20.0	8.6
Level 4	2.9	0.5	2.5
Level 5	0.0	0.0	0.0
Scored at (%)			
Levels 1–2	68.4	79.5	–11.1
Levels 3–5	31.6	20.5	11.1
Sample size	60	54	

SOURCE: MDRC calculations using GAIN TALS data.

NOTES: Calculations for this table used data for all TALS respondents in San Diego, including those who did not participate in basic education.

Estimates are regression–adjusted using ordinary least squares, controlling for pre–random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences.

A two–tailed t–test was applied to differences between experimental and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) The standard deviation of the outcome measure is for all controls, with counties weighted equally.

The preceding analysis gives estimates of average TALS score impacts per experimental group sample member, derived from a comparison of experimentals and controls. It would also be of interest to estimate TALS score impacts per basic education *participant* by comparing TALS scores of participants in the experimental group with those of nonparticipants in the experimental group. Such an analysis would be called "nonexperimental" because the comparison of basic education participants with basic education nonparticipants is not a comparison of two randomly assigned groups. These two groups are, instead, defined by activities occurring after the randomization that created the experimental and control groups. A nonexperimental analysis was not originally planned for the present evaluation and is not included in this report.

One important objective of such a nonexperimental analysis would be to increase the statistical power of the TALS score impact estimates. In particular, it would be desirable to confirm the experimental finding that TALS score impacts were achieved only by basic education participants in San Diego and not by basic education participants in other counties. It would also be important to revisit some other questions: Do TALS score impacts increase with length of stay in basic education? Are different subgroups of participants affected differently by participation in basic education? In addition, it would be valuable to investigate whether impacts on TALS scores differ significantly across schools and whether length of stay, subgroup, and school effects are different under different county implementation approaches.

III. GAIN's Impacts on Earnings and AFDC Payments for Those Determined to Need Basic Education

Any assessment of the full impacts of basic education in GAIN must take into account impacts on earnings and AFDC receipt. However, the labor market and AFDC impacts of basic education are likely to take longer to appear than are the impacts of job search and other elements of GAIN. Those other elements of GAIN aim for immediate employment. In contrast, basic education (and other skills-building activities) intentionally put off immediate employment with a view to increasing the long-run ability of participants to find and hold jobs with higher earnings and with earnings that increase over time. A typical pattern of impacts for a research sample containing a substantial percentage of basic education participants might therefore begin with small or even negative effects during the participation period and shortly afterwards. This initial "investment phase" would be followed by a period of increasing impacts. Finally, after several years, the impacts of basic education on earnings and AFDC might begin to exceed those of immediate job entry activities. In welfare-to-work programs, this period may take five years from the point of program registration (i.e., from the point of random assignment in GAIN).[30]

Two-year impacts (covering follow-up quarters two through nine) on earnings and AFDC payments for sample members determined to need basic education were presented in the preceding report[31] and are summarized in Appendix Tables E.3 and E.4 of this report. Over a two-year follow-up period, Butte and Riverside showed large earnings gains and AFDC reductions for the AFDC-FGs determined to need basic education. Alameda, Los Angeles, and San Diego showed only small two-year earnings impacts for this group, although they produced mid-sized AFDC reductions, which exceeded their earnings gains. Tulare produced small two-year earnings impacts and no AFDC impacts.

Given the expected time pattern of small initial impact and later impact growth, two years of follow-up may not be sufficient to reveal the full impact of basic education in GAIN. It is possible, however, to look a bit beyond the first two years of follow-up by examining outcomes for individuals who entered the research samples during the early part of the random assignment period. These "early cohorts" have more than nine quarters of follow-up. Differences between experimentals and controls in quarterly earnings are shown for these cohorts in Figure 5.1. These quarterly earnings impact estimates for the early in-need-of-basic-education cohorts suggest that the available two-year estimates may, as suspected, not be indicative of the longer-term effects of basic education in GAIN. In Alameda, Los Angeles, and Tulare, Figure 5.1 shows some upward movement of earnings impacts only just beginning around quarter seven or eight and continuing into year three. If these upward movements continue beyond that point and appear in the late cohort as well, then longer-term earnings impacts may be much larger than the two-year estimates for the group in these counties that was determined to need basic education. If so, then longer-term AFDC impacts may also increase, although past research has shown that AFDC reductions do not always follow directly from earnings gains.[32] It would therefore be prudent to await longer-term data on earnings and AFDC payments before making a summary judgment about the impacts of basic education on the portion of the sample determined to need it.

---

[30] An example of this pattern may be seen in the five-year follow-up results for the experimental evaluation of the Baltimore Options program (Friedlander and Burtless, forthcoming). It was only in follow-up year five that earnings impacts for this program, which included some education and training, began to show evidence of exceeding those of programs with a strong focus on immediate job entry.

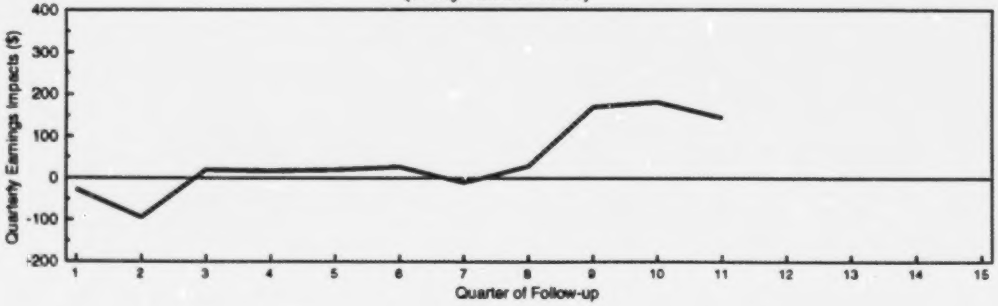
[31] Friedlander, Riccio, and Freedman, 1993.

[32] AFDC impacts for the early cohorts of the group determined to need basic education show a leveling off or the start of a decline by year three in Butte, Los Angeles, Riverside, and San Diego. They show some movement toward greater impacts in Alameda and Tulare.

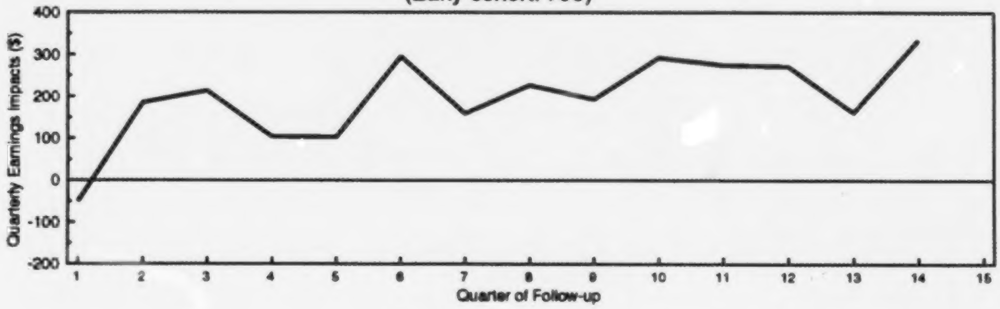
FIGURE 5.1

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's IMPACTS ON EARNINGS FOR THE EARLY COHORTS OF AFDC-FG REGISTRANTS

Alameda
(Early cohort: 569)



Butte
(Early cohort: 790)



Los Angeles
(Early cohort: 2,466)

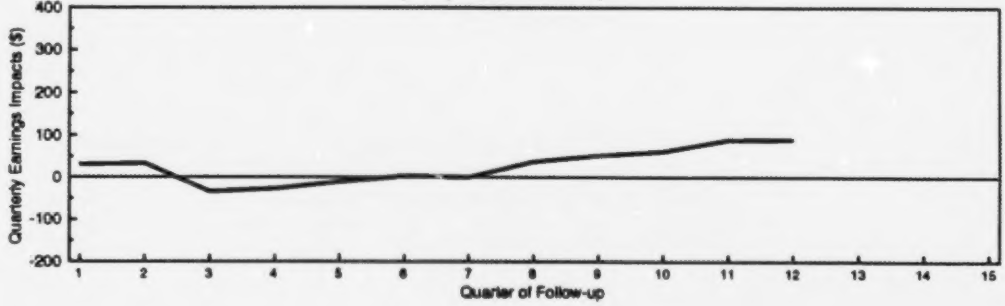
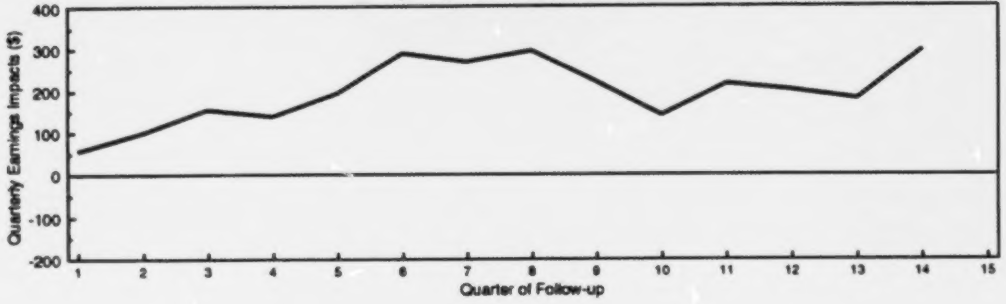
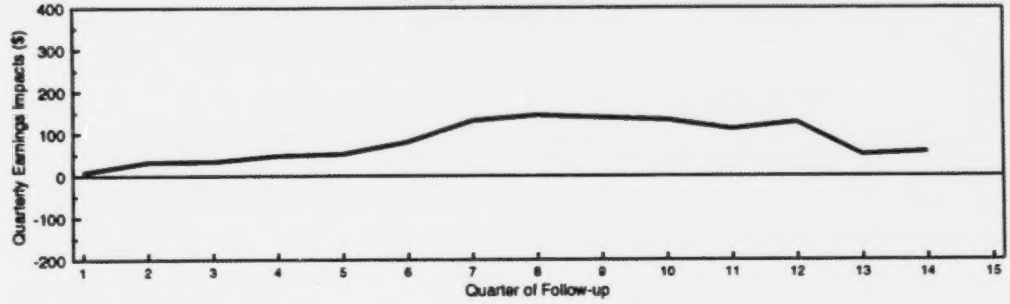


FIGURE 5.1 (continued)

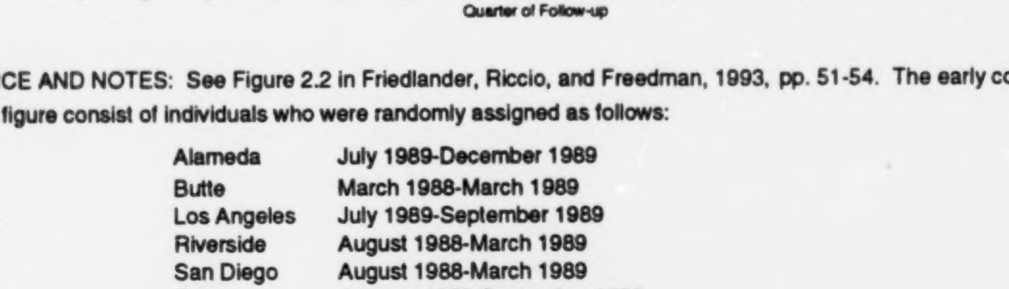
Riverside
(Early cohort: 2,554)



San Diego
(Early cohort: 5,152)



Tulare
(Early cohort: 1,285)



SOURCE AND NOTES: See Figure 2.2 in Friedlander, Riccio, and Freedman, 1993, pp. 51-54. The early cohorts in this figure consist of individuals who were randomly assigned as follows:

Alameda	July 1989-December 1989
Butte	March 1988-March 1989
Los Angeles	July 1989-September 1989
Riverside	August 1988-March 1989
San Diego	August 1988-March 1989
Tulare	January 1989-September 1989

At this time, however, certain two-year impact estimates point to some longer-term estimates that will be of special interest. In particular, it will be of interest to determine longer-term earnings and AFDC impacts for the group determined to need basic education in Tulare, where they achieved the largest increase in GED receipt, and in San Diego, where they achieved impacts on TALS scores. It will also be of interest to examine further the subgroup of the in-need-of-basic-education sample who scored 215 or above on both CASAS tests, since these sample members achieved most of the GED and TALS score impacts estimated for GAIN in this report. The two-year data reveal that San Diego, Tulare, and the subgroup that scored 215 or above on both CASAS tests generally obtained small impacts on earnings and AFDC payments in the short term.[33] It will be important to examine later estimates for these groups to see whether the GED and TALS score impacts they obtained were associated with longer-term impacts on earnings and AFDC. If not, then the effectiveness of the additional GED receipt and increased academic achievement in producing changes in work and welfare behavior would be called into question.

IV. Summary

The empirical findings presented in this chapter suggest that the content and organization of basic education services in GAIN may be as important as the amount of basic education received in increasing the educational achievement and attainment of GAIN registrants. The GAIN program in Tulare produced a striking impact of 19 percentage points on GED and high school diploma receipt. This was followed by an 8 percentage point impact in Alameda. Tulare enhanced the basic education services offered to GAIN students, particularly by providing counseling and close monitoring. Both Alameda and Tulare not only assigned a substantial proportion of those determined to need basic education to basic education services, but also encouraged registrants to move from ABE to GED programs.

The GAIN program in San Diego produced statistically significant impacts on educational achievement. San Diego's impact on the combined document and quantitative TALS score was 34 points (representing a gain of 36 percent of a standard deviation). It should be noted, however, that sample sizes for this analysis were relatively small. County and subgroup estimates therefore indicate the general order of magnitude of TALS score impacts rather than the precise amount of each effect. The results do suggest that no county program was able to produce effects on achievement like those in San Diego, which offered services on a county-wide basis that were more intensive and closely monitored and were intended to be tailored to the needs of welfare recipients. These findings also indicate that it is important to distinguish between the educational achievement and attainment outcomes, since one can be realized in the absence of the other.

---

[33] Using the available records data, two-year impacts on earnings and AFDC payments were calculated for the sample of GAIN survey respondents used for this report. For earnings, the two-year impacts for San Diego, Tulare, and the subgroup that scored 215 or above on both CASAS tests were less than half the all-county average impact. For AFDC payments, the two-year impact estimate for San Diego was as large as the all-county average impact, but impacts for Tulare and for the subgroup that scored 215 or above on both CASAS tests were well below the average.

Impacts on educational attainment and achievement were obtained primarily for individuals at higher initial levels of literacy. In terms of GED and high school diploma receipt, those who scored 215 or above on both the reading and mathematics CASAS tests at the time of random assignment had a 20 percentage point impact. Those scoring 215 or above on only one of those tests had only a 5 percentage point impact. Those scoring below 215 on both tests or having no score (i.e., composed mostly of those who were unable to take the test because they could not read English) had no impact. As noted in Chapter 3, subgroups with lower initial literacy levels accounted for a small proportion of GED participants and a relatively greater proportion of ABE participants. This pattern suggests that many in the lower literacy groups did not make a transition from ABE to GED. There were several possible reasons for this: Obtaining a GED may not have been the GAIN program's educational goal for them (consistent with the GAIN regulations, some counties encouraged participation in job search after the completion of ABE); or they may not have reached satisfactory basic skills levels in the program; or they may have left the program before they made sufficient gains to enter a GED program. The emphasis Tulare gave to linking participation in ABE with subsequent GED participation may have contributed to the large impacts on GED receipt in that county. For those who were initially at higher literacy levels, the GAIN program may have provided an accessible route for acquiring the specific knowledge needed to pass the GED test. In addition, the program may have offered the moral support, support services (such as child care), or "push" these individuals needed to obtain their GED. Findings from the TALS analysis indicate that GAIN was more successful in raising the achievement levels of those who started out at higher initial literacy levels.

The impacts on achievement and attainment do not appear to have been strongly correlated with the amount of participation in basic education services. Counties and subgroups with small impacts on achievement and attainment often had average or above-average experimental-control differences in rates of participation in and total scheduled hours of basic education. This was true most notably for Los Angeles and the subgroup that scored below 215 on both CASAS tests. Small achievement and attainment impacts did not result from any failure to provide basic education services, although, particularly for those at lower literacy levels, it cannot be determined whether the amount of basic education received was enough. Conversely, large impacts for particular counties or subgroups did not result from exceptionally large amounts of participation in basic education. The counties that produced the largest achievement and attainment impacts (San Diego, Tulare, and Alameda) appear to have succeeded not through greater quantity of participation but rather through their program practices and the content and organization of the education experiences provided. Sample members at higher initial literacy levels obtained large educational achievement and attainment impacts but spent shorter periods of time in basic education activities than did those at lower initial literacy levels. They appear to have obtained those impacts, at least in part, because they were able to benefit from the kinds of basic education offered and not because they obtained more basic education than other subgroups.

In the counties that produced impacts on educational achievement or attainment, the GAIN program did not result in earnings impacts within the two-year follow-up period that is available for the full sample at this time. Results for a small early-enrolling sample with three years of follow-up suggest that the two-year impacts may not be indicative of the longer-term effects of basic education in GAIN. In Alameda, Los Angeles, and Tulare, the early-enrolling sample shows a growth in earnings impacts just beginning in the second year of follow-up and increasing into the third year. Thus, longer follow-up is needed to determine whether the investment in educational attainment and achievement will pay off. At the end of the two-year follow-up period, Riverside, which operates a program using both job search and education services and has a strong focus on quick employment, had large, statistically significant impacts on earnings and welfare receipt for those determined to need basic education. These results indicate that the county's strategy had little effect on education outcomes, but had a more immediate effect on employment and earnings.

This study raises questions about how existing adult education programs, which normally serve a voluntary population, can be structured or adapted to produce educational gains for the less-skilled segments of the welfare population. Individuals with lower levels of basic skills stayed in basic education programs for relatively long periods of time, and the education programs provided them with an "opportunity to learn," to the extent that could be measured. The TALS analysis suggests that this group's achievement gains were minimal; their educational attainment impacts were also small. This indicates that the amount and type of education services received by this group may not have been sufficient, particularly given the inconsistent attendance patterns. Different and perhaps more comprehensive services may be needed to produce results for this group.

Some caution should be exercised in interpreting the TALS score impact results. Sample sizes for counties and subgroups were small, and the finding of large impacts for the San Diego program should be verified by studies of similar program approaches at other localities. Waiting for longer-term impact results on earnings and AFDC receipt will also be important in judging the full effects of GAIN on academic skills that are valued in the labor market. Some positive effects may not have been captured by the TALS and may only show up later on, at the workplace, in the form of higher earnings. This might occur if the basic education that was provided focused on skills that were not tested by the TALS. While the TALS was designed to measure performance across a broad range of literacy levels, it is possible that the TALS was not sensitive enough to pick up achievement gains for individuls at very low literacy levels. Moreover, it should be noted that TALS test-takers did not have the same incentives as the GED test-takers. Passing the GED test was probably seen by most GED test-takers as a way to obtain higher earnings. Doing well on the TALS could have had no financial benefit, and TALS test-takers may therefore have been less motivated to do their best. This may have been particularly true for the lower literacy subgroups, for whom any academic skills test would present a formidable challenge. Finally, it may be that achievement gains of a policy-relevant magnitude were made by some basic education participants, but by too few to appear clearly in the overall experimental-control difference.

APPENDICES

APPENDIX A

SURVEY RESPONSE ANALYSIS

Data on education outcomes for this report came from two sources: the GAIN registrant survey and the Test of Applied Literacy Skills (TALS). The literacy test was administered to a selected group of sample members during the survey interview. Not all sample members selected for the survey could be interviewed, however. Some could not be located, and some refused or were unable to be interviewed. And some of those selected to be tested could not be interviewed or could not be tested at the interview. Sample members who completed the survey or TALS are called *respondents*. Sample members selected for the survey or for TALS who did not complete them are called *nonrespondents*. This appendix presents an analysis of response patterns undertaken to determine whether impacts on receipt of a GED (or a high school diploma) or literacy would be biased by the absence of completed instruments for some sample members. Such an analysis is routinely performed in field studies using survey and test data.[1]

Whenever survey or test response rates are less than 100 percent, two kinds of biases may be present. First, if experimentals and controls respond differently, then the characteristics of the two research groups may be dissimilar. If so, the fundamental comparison between experimentals and controls may be invalid, and impact estimates may be biased. Second, the sample of completed surveys and tests may not well represent the full sample of program registrants who were selected for interviewing. In that case, the impact estimates for survey or test respondents may not easily generalize to all program registrants.

For the GAIN samples, the characteristics of experimental and control group respondents do not appear to have been markedly dissimilar, either among survey respondents or among TALS respondents. In both the survey and TALS samples, several differences were found in the characteristics of respondents and nonrespondents. Therefore, estimates based on the survey and TALS respondent samples may not accurately represent impacts for the full samples. The analysis suggests, however, that any biases may be quite small.

---

[1] The issue of item nonresponse – i.e., the failure to respond to a given question or set of questions – is not examined here.

I. Overall Rate of Response

Table A.1 gives the number of completions and the response rates for the survey and TALS for experimentals and controls in each county and in all counties combined. For the survey, the total rate of response was 79.5 percent, only slightly below the targeted response rate of 80 percent. This response rate was high enough so that the survey probably represented the full evaluation sample quite well. Across counties, response rates ranged from 76.7 percent in Riverside to 83.1 percent in Alameda. County variation in response rates was not statistically significant. More important is that none of the counties had a very low response rate. Within experimental and control groups, overall response rates were similar (78.4 percent for experimentals compared to 80.7 percent for controls). In addition, none of the experimental-control differences within counties was large or statistically significant. These results suggest that the fundamental comparison of experimentals and controls did not produce biased impact estimates.

Response rates were lower for the TALS. Test scores were available for 65 percent of sample members selected to be surveyed and tested. This rate was lower than the overall survey response rate because some survey respondents could not or would not take the TALS. A response rate for TALS under 70 percent raises questions about the generalizability of impact results from the TALS respondent sample to the broader evaluation sample. This issue will be addressed below. There was also a wider range of response rates across counties for the TALS than for the survey. Response rates ranged from 57.9 percent (in Tulare) to 78.2 percent (in Los Angeles). These cross-county differences in response rates for the TALS were statistically significant at the 0.05 level. Between experimentals and controls, there was no sizable difference in the response rates for the TALS sample as a whole. In Riverside, controls responded at a higher rate than did experimentals: 67.8 percent versus 54.8 percent, a statistically significant difference. Differences in response rates between research groups were smaller in the other counties.

II. Response Patterns for the Survey

Table A.2 presents the results of an analysis of survey response. (TALS response is considered in the next section.) Among respondents, the characteristics of experimentals and controls were generally similar, indicating that the fundamental comparison of GED and high school diploma receipt and other outcomes should be unbiased. Differences in the distribution of respondents across counties were found, but these were expected because the experimental:control ratio in Riverside was 2:1 but was roughly 1:1

TABLE A.1

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: RESPONSE RATES FOR GAIN REGISTRANT SURVEY AND TALS, BY COUNTY AND RESEARCH GROUP

County and Research Group	Survey		TALS Test	
	Number of Completions	Response Rate (%)	Number of Completions	Response Rate (%)
Alameda				
Experimentals	225	80.6	163	67.9
Controls	241	85.5	171	73.7
Total	466	83.1	334	70.8
Los Angeles				
Experimentals	237	79.3	95	81.2
Controls	254	81.9	91	75.2
Total	491	80.6	186	78.2
Riverside				**
Experimentals	416	75.8	153	54.8
Controls	231	78.3	80	67.8
Total	647	76.7	233	58.7
San Diego				
Experimentals	221	77.0	60	65.2
Controls	210	76.9	54	62.1
Total	431	77.0	114	63.7
Tulare				
Experimentals	254	81.7	124	62.0
Controls	262	80.6	124	54.4
Total	516	81.1	248	57.9
All Counties				
Experimentals	1,353	78.4	595	64.1
Controls	1,198	80.7	520	66.2
Total	2,551	79.5	1,115	65.1 xx

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: A response rate is the number of completions taken as a percent of sample members selected to be surveyed or tested.

Butte County was not included in the survey.

No weighting is applied to counties in the "all counties" estimates.

The number of survey completions includes both AFDC–FG and AFDC–U registrants. The number of TALS completions includes only AFDC–FG registrants (AFDC–U registrants were not included in the TALS sample). Four sample members who took the TALS were not included in this table because they were missing identifying information.

A chi–square test was applied to differences in response rates between experimentals and controls for all counties and within each county. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

A chi–square test was applied to the variation in total response rates across counties. Statistical significance levels are indicated as xxx = 1 percent; xx = 5 percent; x = 10 percent.

TABLE A.2

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: SELECTED CHARACTERISTICS OF GAIN REGISTRANT SURVEY RESPONDENTS AND NONRESPONDENTS

	Survey Sample			Survey Respondents		
Characteristic	Respondents	Nonrespondents		Experimentals	Controls	
Research sample status (%)						
Experimental	53.0	56.4		--	--	
Control	47.0	43.6		--	--	
County (%)			**			***
Alameda	18.3	14.4		16.6	20.1	
Los Angeles	19.2	17.9		17.5	21.2	
Riverside	25.4	29.9		30.7	19.3	
San Diego	16.9	19.6		16.3	17.5	
Tulare	20.2	18.2		18.8	21.9	
Received GED or high school diploma (%)	22.0	22.2		22.4	22.2	
Range of scores on both CASAS tests (%)						*
215 or above on both	21.7	21.4		21.5	20.7	
215 or above on one	40.3	40.7		39.9	40.2	
214 or below on both	14.1	12.9		15.9	13.0	
No score	23.9	25.0		22.8	26.1	
If score available						
Average reading score	225.5	225.4		225.4	225.4	
Average math score	209.2	208.9		209.1	209.0	
Limited English proficiency (%)	19.7	18.8		19.7	20.8	
Employed in prior year (%) (a)	33.1	31.2		31.9	34.0	
If employed in prior year						
Average earnings ($)	3762	3230		3647	3936	
Received AFDC in prior year (%) (a)	88.7	85.6	**	89.8	88.9	
If received AFDC in prior year						
Average AFDC amount ($)	7097	6322	***	7118	7042	
Average number of months receiving AFDC in prior year	10.8	9.7	***	10.9	10.7	
Most disadvantaged (%) (a),(b)	40.3	35.0	**	42.5	39.2	*
Average number of children	2.1	2.1		2.1	2.1	
Had a child under age 6 (%)	20.5	22.9		21.6	20.2	
Average age (years)	35.4	34.6	*	35.2	35.8	
Sex (%)			***			
Female	80.3	70.3		80.2	80.6	
Male	19.7	29.7		19.8	19.4	
Ethnicity (%)			***			
White, non-Hispanic	27.1	34.6		26.3	25.4	
Hispanic	36.8	28.1		36.8	36.2	
Black, non-Hispanic	28.5	29.0		29.6	30.0	
Asian, other	7.5	8.3		7.2	8.4	
Sample size	2,551	659		1,353	1,198	

(continued)

TABLE A.2 (continued)

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: Butte County was not included in the survey.

Respondent and nonrespondent estimates are unweighted.

Each county was given equal weight in the averages for experimentals and controls within the survey respondent sample analysis, except for the comparison of the distribution of experimentals and controls across the research counties. Weighting implies that experimental and control averages may not always bracket respondent averages.

A chi−square test or a t−test was applied to the differences between respondents and nonrespondents, and between experimentals and controls within the respondent sample. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) 15 cases within the survey−eligible sample lacked the identifying information necessary to calculate certain measures relating to prior employment and AFDC receipt. These cases are not included in analyses requiring these data. Ten of the cases were survey respondents and 5 were survey nonrespondents. Of the 10 survey respondent cases missing identifying information, 6 were experimentals and 4 were controls.

(b) The "most disadvantaged" individuals are those who did not have a high school diploma or GED, were long−term welfare recipients, and had no earnings in the prior year.

elsewhere (see Chapter 2). County differences were corrected for by weighting in the main analysis participation and educational attainment impacts, and no bias from them should remain. Small difference were also found in CASAS scores and level of disadvantagedness.

To further assess the importance of any experimental-control differences within the survey respondent sample, the 0/1 dummy variable indicating membership in the experimental group was regressed on demographic information and baseline CASAS test scores. The regression R-square was 0.026 out of a possible maximum of 1.000, which was statistically significant at the 0.01 level. The only independent factor that contributed to a statistically significant degree to the regression R-square was county. Thus, the weighting correction for county in the participation and educational attainment impact analyses should remove the only source of potential bias in the experimental-control comparison.

On the left part of the table is a comparison of survey respondents with those sample members selected for the survey but for whom a completed survey was not obtained. Several differences may be noted. Respondents were more likely to be from Alameda or Los Angeles. They were more often female and non-white. They tended to be slightly older, to have had longer histories of prior AFDC receipt, and to fall into the "most disadvantaged" category.

In a regression of the 0/1 dummy indicating a respondent, statistically significant predictors included CASAS, sex, ethnicity, prior earnings, and especially AFDC receipt history. This indicates that the underlying difference in response probably was associated with those factors alone. The regression R-square was 0.046 and was statistically significant at the 0.01 level.

The differences in characteristics between respondents and nonrespondents may mean that impacts calculated on the respondent subsample do not closely represent the impacts for all persons selected for the survey. Such bias need not occur, however, even when respondents and nonrespondents differ. It may be that their differences were not related to size of impact. To investigate the possible magnitude of any bias, demographic characteristics and baseline CASAS scores were used to predict the impact on percent receiving a GED or a high school diploma during the follow-up period for the full sample of respondents and nonrespondents. It was estimated that impacts would have been the same had the survey response rate been 100 percent.[2] Although this analysis does not account for possible differences in unobservables, it does suggest that potential bias will be small if the estimate of the impact on GED or high school diploma receipt for the respondent subsample is accepted as the estimate for the full survey sample.

---

[2] Receipt of a GED or a high school diploma was regressed on demographics and CASAS scores separately for experimental and control group survey respondents. Then, for all sample members, experimental and control group regression coefficients were used to predict receipt of such a credential. The mean of the difference is the predicted impact. For the full sample, a 6.5 percentage point impact was predicted, equal to a predicted 6.5 percentage point impact for the respondents-only sample. The predicted impact estimate for respondents differs slightly from the estimate reported in Chapter 5 because the latter was not regression-adjusted.

III. Response Patterns for the TALS

Table A.3 presents the corresponding estimates for the TALS sample. As for the registrant survey as a whole, experimentals and controls within the TALS respondent sample were fairly similar. Research groups differed in distribution across county owing to the high ratio of experimentals to controls in Riverside. Beyond this, as Table A.3 indicates, experimentals who completed the TALS failed both baseline CASAS tests at a higher rate than did their control group counterparts. Experimentals also more often had limited English proficiency.

Baseline CASAS and limited English differences could affect TALS score impact estimates. In a regression of the 0/1 experimental-group dummy on demographic and CASAS variables, however, CASAS scores and limited English were not statistically significant. Only the county and ethnicity factors were statistically significant. Overall R-square was 0.038 and was statistically significant at the 0.05 level. These results indicate that CASAS and limited English differences in part stemmed from the greater incidences of Hispanics in the experimental group and possibly from other cross-county differences among registrants. The use of regression adjustment in calculating TALS score impacts in the main study should correct for those differences and yield unbiased impact estimates.

Comparing respondents to nonrespondents (in the left part of the table) shows a pattern similar to the survey as a whole. As before, respondents were more likely to have been from Alameda or Los Angeles, to be female and non-white, to have had longer histories of prior AFDC receipt, and to fall into the "most disadvantaged" category. However, although not shown in the table, respondents to TALS were no more likely than nonrespondents to have participated in basic education during the follow-up period.[3] For sample members with CASAS scores, respondents had a slightly lower average score on the CASAS reading test.

The regression of TALS respondent status on demographic characteristics and CASAS scores yielded a statistically significant (at the 0.01 level) R-square of 0.061. In the regression, differences

---

[3] Using survey information, the basic education "ever participated" rate for TALS respondents was calculated as 22.0 percent (including experimentals and controls) and for nonrespondents was 21.1 percent. The latter estimate was based on the 264 TALS nonrespondents who were survey respondents. The difference was not statistically significant.

TABLE A.3

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: SELECTED CHARACTERISTICS OF TALS RESPONDENTS AND NONRESPONDENTS

	TALS Sample			TALS Respondents		
Characteristic	Respondents	Nonrespondents		Experimentals	Controls	
Research sample status (%)						
Experimental	53.4	55.6		--	--	
Control	46.6	44.4		--	--	
County (%)			***			***
Alameda	30.0	23.0		27.4	32.9	
Los Angeles	16.7	8.7		16.0	17.5	
Riverside	20.9	27.4		25.7	15.4	
San Diego	10.2	10.9		10.1	10.4	
Tulare	22.2	30.1		20.8	23.8	
Received GED or high school diploma (%)	21.3	18.9		17.8	18.2	
Range of scores on both CASAS tests (%)						***
215 or above on both	27.6	28.4		28.2	29.7	
215 or above on one	49.2	51.8		46.2	48.9	
214 or below on both	20.1	16.4		23.2	16.5	
No score	3.0	3.5		2.4	4.8	
If score available						
Average reading score	224.7	226.0	*	224.4	225.4	
Average math score	208.6	209.3		208.8	208.7	
Limited English proficiency (%)	3.4	4.5		5.3	2.9	**
Employed in prior year (%)	30.1	26.4		29.6	32.1	
If employed in prior year						
Average earnings ($)	3,323	2,913		3,213	3,507	
Received AFDC in prior year (%)	91.8	85.5	***	90.9	91.3	
If received AFDC in prior year						
Average AFDC amount ($)	7118	6386	***	6936	6980	
Average number of months receiving AFDC in prior year	11.1	10.1	***	10.9	10.8	
Most disadvantaged (%) (a)	43.1	38.6	*	44.6	41.5	
Average number of children	2.0	1.9		1.9	2.0	
Had a child under age 6 (%)	16.5	16.2		14.7	13.3	
Average age (years)	34.2	33.6		33.9	34.6	
Sex (%)			***			
Female	90.7	86.1		89.4	92.0	
Male	9.3	13.9		10.6	8.0	
Ethnicity (%)			***			
White, non-Hispanic	29.3	39.1		28.8	31.5	
Hispanic	27.6	25.4		32.0	26.9	
Black, non-Hispanic	40.9	31.6		37.5	38.6	
Asian, other	2.2	4.0		1.7	3.0	
Sample size	1,115	599		595	520	

(continued)

TABLE A.3 (continued)

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: Butte County was not included in the survey.

The TALS sample includes only AFDC–FGs.

Four sample members who took the TALS were not included in this table because they were missing identifying information.

Respondent and nonrespondent estimates are unweighted.

Each county was given equal weight in the averages for experimentals and controls within the survey respondent sample analysis, except for the comparison of the distribution of experimentals and controls across the research counties. Weighting implies that experimental and control averages may not always bracket respondent averages.

A chi–square test or a t–test was applied to the differences between respondents and nonrespondents, and between experimentals and controls within the respondent sample. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) The "most disadvantaged" individuals are those who did not have a high school diploma or GED, were long–term welfare recipients, and had no earnings in the prior year.

between respondents and nonrespondents resulted from county, sex, ethnicity, prior earnings, and AFDC receipt history. The differences between respondents and nonrespondents may not lead to bias in generalizing the TALS impact results, however. In fact, it was predicted that the impact on combined document and quantitative literacy scores would be about one point less for the full TALS sample than for the TALS respondent sample, a very small difference.[4] This result suggests that the potential bias in generalizing estimates of TALS score impact from the respondent sample to the full TALS sample should be small.

One condition that may have led to bias was found in Riverside. As already noted, Riverside was the only county in which the response rate for experimentals and controls differed to a large and significant degree. These differences may have been associated with differences in the characteristics of sample members who responded. In particular, it was found that experimentals in Riverside had a higher rate of scoring below 215 on both CASAS tests: 17.6 percent versus 8.8 percent for controls. At the same time, however, only 3.3 percent of Riverside experimentals in the TALS sample could not take the CASAS tests (a situation that usually occurred because of difficulty in reading English) compared to 12.5 percent of controls. Although CASAS scores were included as control variables in the TALS score impact regression, it may be that the observed differences reflected other, unmeasured differences between experimentals and controls. If so, then some of the prior propensity of experimentals to score lower on TALS may not have been corrected for by the regression. This could have made the estimated experimental-control differential in TALS scores in Riverside more negative that the true differential in that county. It is possible that the negative TALS score impact estimate in Riverside resulted partly from uncontrolled pre-random assignment differences between experimentals and controls.

---

[4] See footnote 2 for the prediction method. The predicted TALS score impact for the full sample was -2.9 points, for the respondent subsample, -3.2 points. This latter predicted impact differs slightly from the impact estimate reported in Chapter 5, because the regression used in this appendix did not weight all counties equally.

APPENDIX B

SUPPLEMENTAL TABLES AND FIGURE TO CHAPTER 2

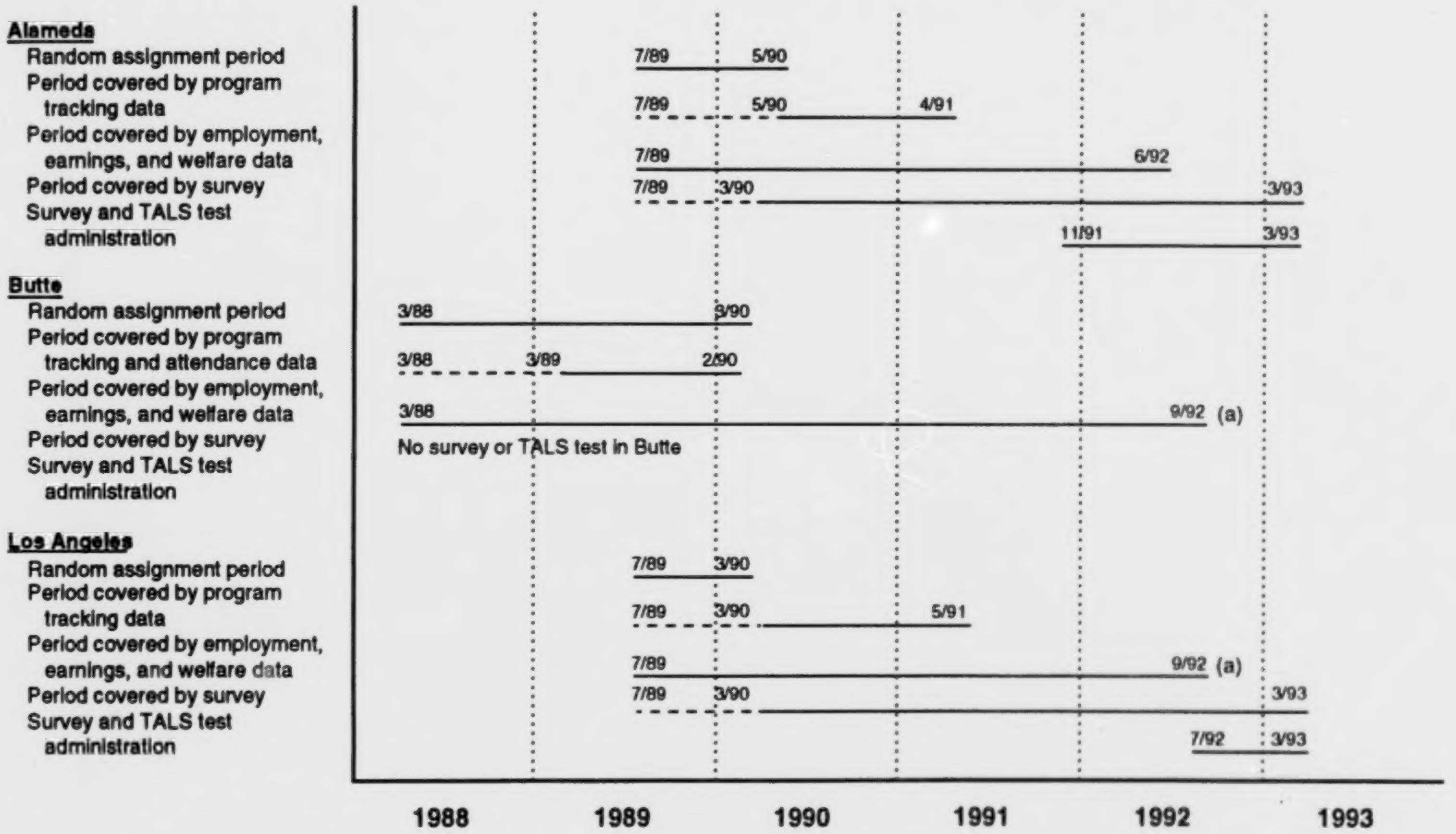
TABLE B.1

SCHOOLS INCLUDED IN THE PROVIDER ATTENDANCE DATA COLLECTION

County	School
Butte	Oroville Adult School
Riverside	Beaumont Adult School
	Coachella Adult School
	Moreno Valley Adult School
	Mount San Jacinto Adult School
	Palm Springs Adult School
	Riverside Community Educational Services
San Diego	Center City Community College
	East San Diego Community College
	Educational Cultural Complex
	Escondido Adult School
	Grossmont Adult School
	Miracosta College
	Sweetwater Adult School
	Vista Adult Center
Tulare	Exeter Adult School
	Lindsay Adult School
	Porterville Adult School
	Proteus
	Tulare Adult School
	Visalia Adult School
	Woodlake Adult School

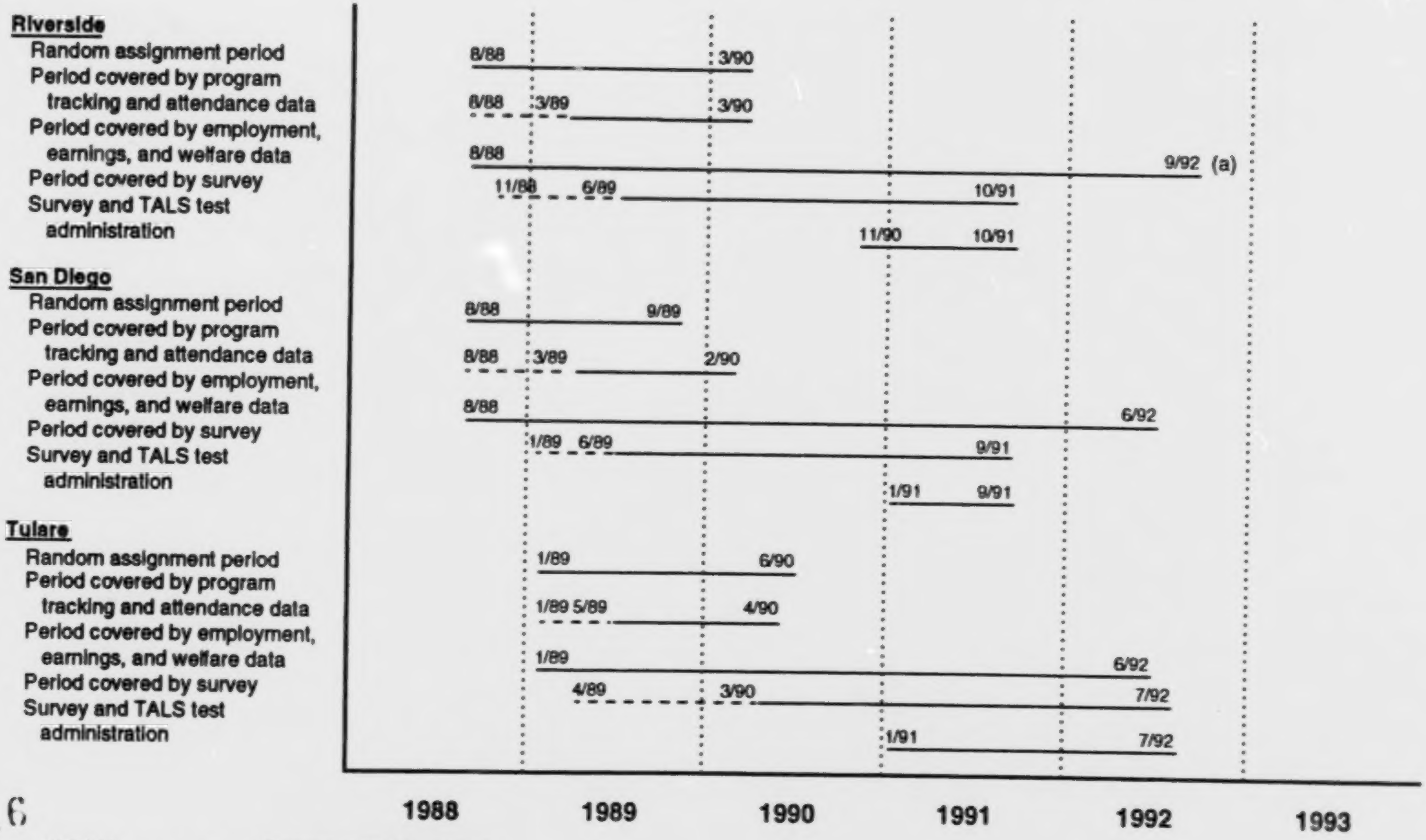
FIGURE B.1

COVERAGE PERIODS FOR KEY DATA SOURCES FOR STUDY OF THOSE DETERMINED TO NEED BASIC EDUCATION



(continued)

FIGURE B.1 (continued)



NOTES: - - - - - - - Sample selection period.

(a) Employment and earnings data collection ended in 6/92.

TABLE B.2

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: SELECTED CHARACTERISTICS OF THE SURVEY RESPONDERS AT GAIN ORIENTATION

	AFDC-FGs					AFDC-Us
Characteristic and Subgroup	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties
Aid status (a) (%)						
Applicant	0.0	0.0	22.3	15.5	16.1	19.2
Short-term recipient	0.0	0.0	29.0	31.6	21.5	31.7
Long-term recipient	100.0	100.0	48.6	52.9	62.4	49.1
Employed within past 2 years (%)	23.1	15.7	38.0	51.6	47.2	63.7
Ethnicity (%)						
White, non-Hispanic	14.8	5.7	42.8	26.8	44.0	20.9
Hispanic	11.8	40.6	37.1	40.3	49.4	48.8
Black, non-Hispanic	70.0	44.0	15.8	25.8	4.8	4.0
Indochinese	0.4	8.5	1.0	3.9	0.0	22.0
Other Asian	0.0	0.8	0.3	0.3	0.0	1.4
Other	1.3	0.5	2.9	2.6	1.8	2.9
Refugee (%)	0.9	9.3	1.9	2.4	2.1	22.0
Received high school diploma or GED (%)	39.1	18.5	18.8	22.8	15.5	15.2
Average highest grade completed	10.7	9.0	9.8	9.3	9.3	8.9
Highest grade completed						
11 or above	65.7	46.3	47.1	44.2	38.1	43.0
9 or 10	24.5	19.8	31.8	26.8	30.6	21.3
8 or below	9.9	33.9	20.6	28.7	29.5	34.4
Scores on CASAS reading test (%)						
225 or above	47.0	26.7	51.9	49.7	51.5	31.8
215-224	23.2	10.5	20.4	15.5	18.4	10.3
214 or below	24.2	13.4	12.0	13.7	13.8	13.0
No score (b)	5.6	49.4	15.6	21.1	16.3	44.9
Scores on CASAS math test (%)						
215 or above	18.2	9.0	31.8	24.5	29.3	18.8
214 or below	76.2	41.6	52.6	54.5	54.4	36.3
No score (b)	5.6	49.4	15.6	21.1	16.3	44.9

(continued)

TABLE B.2 (continued)

Characteristics	AFDC-FGs Alameda	AFDC-FGs Los Angeles	AFDC-FGs Riverside	AFDC-FGs San Diego	AFDC-FGs Tulare	AFDC-Us All Counties
Scores on both CASAS tests (%)						
215 or above on both	16.5	8.5	30.8	24.5	27.9	18.8
215 or above on one	55.4	29.3	42.6	40.8	43.3	23.3
214 or below on both	22.5	12.9	11.0	13.7	12.5	13.0
No score (b)	5.6	49.4	15.6	21.1	16.3	44.9
Reasons for being determined to need basic education (%)						
High school diploma or GED received but scored 214 or below on CASAS reading or math test	37.8	16.7	17.5	20.8	13.4	11.6
No high school diploma or GED received and scored 214 or below on CASAS reading or math test	38.0	24.4	33.3	27.6	38.8	22.4
No high school diploma or GED received and scored 215 or above on both CASAS tests	16.5	8.2	29.9	22.9	27.2	17.2
Limited English proficiency (c)	3.6	35.5	12.7	25.0	15.2	43.6
No high school diploma or GED received, proficient in English, and CASAS test scores not available	2.1	13.9	5.3	1.8	3.9	3.9
In school or training (%)	11.0	5.1	10.7	15.5	7.3	4.4
Average age (years)	34.9	39.0	34.1	35.0	34.3	34.8
Average number of children	2.0	2.3	1.9	1.8	2.1	2.8
Research sample status (%)						
Experimental	48.3	48.1	66.7	50.3	49.0	49.8
Control	51.7	51.9	33.3	49.7	51.0	50.2
Sample size	466	389	582	380	441	293

SOURCE: MDRC calculations using GAIN intake forms for the registrant survey respondent sample.

NOTES: Sample characteristics were recorded on the intake form by GAIN staff at orientation and are based on answers from GAIN registrants.
Butte County was not included in the survey.
The AFDC-U sample does not include any registrants from Alameda.
The "all county" estimate is an average of the county estimates, with each county weighted equally.
Distributions may not add to 100.0 percent because of rounding or because of information missing from some sample members' intake forms.

(a) Applicants are registrants who were applying for AFDC at the time of referral to the GAIN orientation; they include reapplicants who may have had prior AFDC receipt. Short-term recipients had received AFDC for two years or less; long-term recipients had received AFDC for more than two years (the AFDC receipt may not have been continuous).

(b) Individuals do not had CASAS test scores primarily because they had limited English proficiency and could complete the tests.

(c) This subgroup includes individuals with and without a high school diploma or GED.

TABLE B.3

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: SELECTED CHARACTERISTICS OF THE TALS TEST RESPONDERS AT GAIN ORIENTATION

Characteristic and Subgroup	Alameda	Los Angeles	Riverside	San Diego	Tulare
Aid status (a) (%)					
Applicant	0.0	0.0	18.7	14.9	16.1
Short-term recipient	0.0	0.0	26.8	34.2	18.5
Long-term recipient	100.0	100.0	54.5	50.9	65.3
Employed within past 2 years (%)	24.8	17.6	36.2	49.1	47.1
Ethnicity (%)					
White, non-Hispanic	13.8	5.9	48.1	33.3	48.8
Hispanic	9.9	20.7	34.9	37.7	44.8
Black, non-Hispanic	72.8	72.3	13.6	25.4	4.8
Indochinese	0.6	0.0	0.0	1.8	0.0
Other Asian	0.0	0.5	0.4	0.9	0.0
Other	1.2	0.5	3.0	0.9	1.6
Refugee (%)	1.2	0.0	0.9	0.9	2.5
Received high school diploma or GED (%)	40.5	33.5	0.0	0.0	15.9
Average highest grade completed (b)	10.8	10.8	9.7	9.2	9.8
Highest grade completed					
11 or above	68.0	67.6	40.4	31.6	41.5
9 or 10	24.6	21.8	40.4	39.5	34.7
8 or below	7.5	10.6	19.1	28.9	23.0
Range of scores on CASAS reading test (%)					
225 or above	49.7	52.1	57.4	52.6	56.5
215-224	24.0	19.1	20.4	21.1	23.4
214 or below	25.7	25.5	15.7	22.8	16.9
No score (b)	0.6	3.2	6.4	3.5	3.2
Range of scores on CASAS math test (%)					
215 or above	18.9	17.6	43.4	36.8	34.3
214 or below	80.5	79.3	50.2	59.6	62.5
No score (b)	0.6	3.2	6.4	3.5	3.2

(continued)

TABLE B.3 (continued)

Characteristics	Alameda	Los Angeles	Riverside	San Diego	Tulare
Range of scores on both CASAS tests					
215 or above on both	17.7	16.5	42.1	36.8	31.9
215 or above on one	57.2	55.9	37.0	36.8	50.4
214 or below on both	24.6	24.5	14.5	22.8	14.5
No score (b)	0.6	3.2	6.4	3.5	3.2
Distribution of reasons for being determined to need basic education (%)					
High school diploma or GED received but scored 214 or below on CASAS reading or math test	39.2	33.5	0.0	0.0	14.1
No high school diploma or GED received and scored 214 or below on CASAS reading or math test	40.7	45.7	48.9	52.6	46.0
No high school diploma or GED received and scored 215 or above on both CASAS tests	17.7	16.0	40.9	34.2	31.5
Limited English ability (c)	0.9	2.1	3.8	9.6	4.4
No high school diploma or GED received, basic skills test scores not available, but not of limited English ability	0.0	0.0	6.4	3.5	2.0
In school or training (%)	12.1	4.3	0.0	0.0	7.9
Average age (years)	34.8	36.4	33.1	33.7	33.2
Average number of children	2.0	2.2	1.8	1.8	2.0
Research sample status (%)					
Experimental	48.8	50.5	66.0	52.6	50.0
Control	51.2	49.5	34.0	47.4	50.0
Sample size	334	188	235	114	248

SOURCE: MDRC calculations using GAIN intake forms for the TALS sample.

NOTES: Sample characteristics were recorded on the intake form by GAIN staff at orientation and are based on answers from GAIN registrants.
Butte County was not included in the TALS test sample.
AFDC-U registrants were not included in the TALS test sample.
Distributions may not add to 100.0 percent because of rounding or because of items missing from some sample members' intake forms.

(a) Applicants are registrants applying for AFDC at the time of referral to GAIN orientation; they include reapplicants who may have not had prior AFDC receipt. Short-term recipients have received AFDC for two years or less. Long-term recipients have received AFDC for over two years. (The AFDC receipt may not have been continous.)

(b) Individuals do not have CASAS test scores primarily because they have limited English proficiency and cannot complete the tests.

(c) This includes individuals with and without a high school diploma or GED.

APPENDIX C

SUPPLEMENTAL TABLES TO CHAPTER 3

TABLE C.1

FOR SURVEY RESPONDERS: LENGTH OF TIME FROM RANDOM ASSIGNMENT TO SURVEY INTERVIEW, BY AFDC STATUS AND COUNTY

	AFDC−FGs						AFDC−Us (a)
Measure	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Average months from random assignment to interview date	30.2	37.0	26.7	25.9	25.7	29.1	29.0
Percentage distribution of number of months from random assignment to interview date							
Less than 24 months	0.0	0.0	6.7	4.7	19.3	6.1	3.1
24 months	3.0	0.0	25.4	41.3	15.0	16.8	19.3
25−28 months	55.2	2.1	49.1	49.2	63.0	43.9	45.5
29−32 months	22.5	11.1	17.2	4.7	2.7	11.7	9.7
33−36 months	4.3	38.0	1.5	0.0	0.0	8.8	9.0
37−40 months	7.7	33.4	0.0	0.0	0.0	8.2	10.1
41−44 months	7.3	15.4	0.0	0.0	0.0	4.5	3.4
45 months or more	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample size	466	389	582	380	441	2258	293

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: Butte County was not included in the GAIN survey.
The "all county" estimate is the average of the county estimates, with each county weighted equally.
Distributions may not add to 100.0 percent because rounding.
(a) The AFDC−U sample does not include any registrants from Alameda.

TABLE C.2

FOR ABE/GED PARTICIPANTS: AVERAGE, MEDIAN, AND PERCENTAGE DISTRIBUTION OF MONTHS IN ABE/GED WITHIN A TWO-YEAR FOLLOW-UP PERIOD, BY AFDC STATUS AND COUNTY

	AFDC-FGs						AFDC-Us (a)
Measure	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Average number of months in ABE/GED	7.6	10.0	5.1	5.1	8.6	7.3	6.6
Median number of months in ABE/GED	5.5	9.0	3.5	3.6	7.0	6.1	4.1
Percentage distribution of number of months in ABE/GED							
Less than 2 months	8.8	7.7	34.7	27.9	14.7	18.8	27.7
2-6 months	50.5	23.1	42.9	48.8	35.3	40.1	32.6
7-12 months	22.0	38.5	14.3	14.0	27.9	23.3	25.2
13-18 months	12.1	25.6	2.0	9.3	11.8	12.2	8.3
19-24 months	6.6	5.1	6.1	0.0	10.3	5.6	6.1
Percent participating in ABE/GED at the end of the follow-up period	20.9	10.3	10.2	18.6	17.7	15.5	8.6
Sample size	91	39	49	43	68	290	23

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: Butte County was not included in the GAIN survey.

The "all county" estimate is the average of the county estimates, with each county weighted equally.

Distributions may not add to 100.0 percent because of rounding.

This table contains estimates for sample members from the experimental group and includes participation in activities arranged through the GAIN program, as well as those that registrants participated in on their own initiative.

(a) The AFDC-U sample does not include any registrants from Alameda.

TABLE C.3

FOR ABE/GED PARTICIPANTS: AVERAGE, MEDIAN, AND PERCENTAGE DISTRIBUTION OF TOTAL SCHEDULED HOURS IN ABE/GED WITHIN A TWO-YEAR FOLLOW-UP PERIOD, BY AFDC STATUS AND COUNTY

	AFDC-FGs						AFDC-Us (a)
Measure	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Average weekly scheduled hours in ABE/GED	16.1	24.7	17.7	24.7	17.3	20.1	18.2
Average total scheduled hours in ABE/GED	516.9	993.9	474.0	555.8	623.3	632.8	612.9
Median total scheduled hours in ABE/GED	351.4	905.7	209.1	398.6	490.4	453.0	471.4
Percentage distribution of total scheduled hours in ABE/GED							
Under 100 hours	12.1	2.6	34.7	16.3	5.9	14.3	30.0
100-249	26.4	5.1	20.4	14.0	25.0	18.2	5.0
250-499	20.9	12.8	14.3	25.6	19.1	18.5	23.0
500-999	25.3	33.3	16.3	30.2	26.5	26.3	25.1
1,000-1,499	9.9	28.2	4.1	9.3	17.6	13.8	10.8
1,500 and over	5.5	17.9	10.2	4.7	5.9	8.8	6.1
Sample size	91	39	49	43	68	290	23

SOURCE AND NOTES: See Table C.2.

TABLE C.4

FOR ESL PARTICIPANTS: AVERAGE, MEDIAN, AND PERCENTAGE DISTRIBUTION OF NUMBER OF MONTHS ATTENDING AND TOTAL SCHEDULED HOURS IN ESL WITHIN A TWO-YEAR FOLLOW-UP PERIOD, BY AFDC STATUS

Measure	AFDC-FGs	AFDC-Us
Average number of months in ESL	9.4	8.4
Median number of months in ESL	7.1	6.3
Percentage distribution of number of months in ESL		
Less than 2 months	4.6	0.0
2-6 months	41.5	56.7
7-12 months	25.8	30.0
13-18 months	13.2	6.7
19-24 months	14.9	6.7
Percent participating in ESL at the end of the follow-up period	36.7	26.7
Average weekly scheduled hours in ESL	17.8	16.0
Average total scheduled hours in ESL	720.8	643.8
Median total scheduled hours in ESL	439.3	440.0
Percentage distribution of total scheduled hours in ESL		
Under 100 hours	6.2	16.7
100-249 hours	22.5	0.0
250-499 hours	32.7	40.0
500-999 hours	12.1	26.7
1,000-1,499 hours	7.1	6.7
1,500 hours or more	19.5	10.0
Sample size	43	14

SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: Butte County was not included in the GAIN survey.

The AFDC-FG sample includes registrants from Alameda, Los Angeles, Riverside, San Diego, and Tulare. The AFDC-U sample includes registrants from all these counties, except Alameda. The estimates presented are the average of the county estimates, with each county weighted equally.

This table contains estimates for sample members from the experimental group and includes participation in activities arranged through the GAIN program, as well as those that registrants participated in on their own initiative.

Distributions may not add to 100.0 percent because of rounding.

TABLE C.5

FOR BASIC EDUCATION PARTICIPANTS: AVERAGE, MEDIAN, AND PERCENTAGE DISTRIBUTION OF NUMBER OF MONTHS ATTENDING AND TOTAL SCHEDULED HOURS IN BASIC EDUCATION ACTIVITIES WITHIN A TWO- TO THREE-YEAR FOLLOW-UP PERIOD, BY AFDC STATUS AND COUNTY

	AFDC-FGs						AFDC-Us (a)
Measure	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Average number of months in basic education activities	8.7	11.3	5.5	5.6	9.1	8.0	8.8
Median number of months in basic education activities	6.6	10.6	5.1	5.1	7.8	6.1	7.4
Percentage distribution of number of months in basic education activities							
Less than 2 months	8.3	9.4	24.0	23.5	13.8	15.8	19.0
2-6 months	43.5	25.0	52.0	52.9	31.3	40.9	30.5
7-12 months	26.9	34.4	17.3	14.7	31.3	24.9	32.9
13-18 months	13.0	10.9	1.3	5.9	10.0	8.2	6.1
19-24 months	3.7	15.6	4.0	2.9	12.5	7.8	1.8
25-28 months	2.8	1.6	1.3	0.0	1.3	1.4	6.2
29 months or more	1.9	3.1	0.0	0.0	0.0	1.0	3.6
Percent participating in basic education at end of follow-up period	16.7	17.2	8.0	20.6	15.0	15.5	12.8
Average weekly scheduled hours in basic education	15.9	24.2	17.7	24.1	17.4	19.8	19.5
Average total scheduled hours in basic education	575.4	1092.8	493.0	531.5	665.6	671.7	828.5
Median total scheduled hours in basic education	437.2	1057.5	473.9	451.1	594.6	531.4	562.9
Percentage distribution of total scheduled hours in basic education							
Under 100 hours	11.1	4.7	24.0	16.2	5.0	12.2	20.1
100-249 hours	24.1	7.8	14.7	11.8	23.8	16.4	3.8
250-499 hours	15.7	12.5	33.3	23.5	17.5	20.5	19.8
500-999 hours	31.5	18.8	17.3	36.8	30.0	26.9	27.4
1,000-1,499 hours	10.2	32.8	2.7	7.4	13.8	13.4	17.3
1,500 hours or more	7.4	23.4	8.0	4.4	10.0	10.7	11.6
Sample size	108	64	75	68	80	395	44

SOURCE: MDRC calculations using data from the GAIN registrant survey and from county AFDC records.

NOTES: The follow-up period for the survey ranged from 26 to 37 months, on average, across the five counties. See Appendix Table C.1 for further information on the follow-up period in each county.

Butte County was not included in the GAIN survey.

This table contains estimates for sample members from the experimental group and includes participation in activities arranged through the GAIN program, as well as those that registrants participated in on their own initiative.

The "all county" estimate is the average of the county estimates, with each county weighted equally.

Distributions may not add to 100.0 percent because of rounding.

Basic education includes GED, ABE, and ESL.

(a) The AFDC-U sample does not include any registrants from Alameda.

TABLE C.6

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: DEMOGRAPHIC CHARACTERISTICS OF SELECTED SUBGROUPS OF AFDC–FG SURVEY RESPONDERS AT GAIN ORIENTATION

Characteristic and Subgroup	215 or Above on Both CASAS Tests	214 or Below on One CASAS Test	214 or Below on Both CASAS Tests	No Score on CASAS Tests	Most Disadvantaged (a)	Less Disadvantaged
Aid status (b) (%)						
Applicant	13.1	9.4	7.8	13.1	0.0	15.9
Short–term recipient	18.1	15.4	16.9	15.5	0.0	23.8
Long–term recipient	68.8	75.2	75.3	71.4	100.0	60.2
Employed within past 2 years (%)	42.9	35.4	30.5	27.7	16.0	47.5
Ethnicity (%)						
White, non–Hispanic	46.2	25.8	15.8	11.3	26.9	26.2
Hispanic	25.8	26.9	38.0	66.0	39.5	32.2
Black, non–Hispanic	25.3	44.6	40.8	12.6	25.8	38.3
Indochinese	0.4	0.3	1.3	7.3	4.4	1.4
Other Asian	0.7	0.0	0.5	0.4	0.6	0.0
Other	1.5	2.1	2.8	0.9	2.1	1.6
Refugee (%)	0.8	1.0	1.7	7.8	4.6	2.1
Received high school diploma or GED (%)	0.2	42.4	26.1	4.1	0.0	42.9
Average highest grade completed	10.2	10.8	9.7	6.5	8.8	10.4
Highest grade completed (%)						
11 or above	50.0	65.1	42.7	14.7	32.3	62.6
9 or 10	40.1	24.7	27.7	17.3	33.3	20.7
8 or below	9.9	10.0	29.5	65.4	33.8	16.2
Scores on CASAS reading test (%)						
225 or above	92.3	60.5	0.0	0.0	38.3	51.2
215–224	7.7	37.3	0.0	0.0	16.9	18.7
214 or below	0.0	2.2	100.0	0.0	16.4	15.1
No score (c)	0.0	0.0	0.0	100.0	28.4	15.0
Scores on CASAS math test (%)						
215 or above	100.0	2.2	0.0	0.0	23.9	21.2
214 or below	0.0	97.8	100.0	0.0	47.7	63.8
No score (c)	0.0	0.0	0.0	100.0	28.4	15.0
Scores on both CASAS tests						
215 or above on both	100.0	0.0	0.0	0.0	23.3	20.0
215 or above on one only	0.0	100.0	0.0	0.0	32.5	51.2
214 or below on both	0.0	0.0	100.0	0.0	15.8	13.9
No score (c)	0.0	0.0	0.0	100.0	28.4	15.0

(continued)

TABLE C.6 (continued)

Characteristic and Subgroup	215 or Above on Both CASAS Tests	214 or Below on One CASAS Test	214 or Below on Both CASAS Tests	No Score on CASAS Tests	Most Disadvantaged (a)	Less Disadvantaged
Distribution of reasons for being determined to need basic education (%)						
High school diploma or GED received but scored 214 or below on CASAS math or reading test	0.0	40.3	25.3	0.8	0.0	39.7
No high school diploma or GED received and scored 214 or below on CASAS math or reading test	0.0	54.8	66.3	0.0	45.3	22.3
No high school diploma or GED received and scored 215 or above on both CASAS tests	97.1	0.0	0.0	0.0	22.3	19.4
Limited English proficiency (d)	2.9	3.8	8.4	66.1	22.4	14.1
No high school diploma or GED received, no CASAS test scores, but not of limited English proficiency	0.0	0.0	0.0	26.6	7.8	3.5
In school or training	12.5	10.6	4.9	8.0	8.5	11.0
Average age (years)	32.5	33.7	36.7	41.8	36.3	34.7
Average number of children	1.9	2.0	2.1	2.2	2.1	2.0
Research sample status (%)						
Experimental	55.6	53.2	57.1	49.0	54.3	52.8
Control	44.4	46.8	42.9	51.0	45.7	47.2
Sample size	505	966	326	461	930	1,319

SOURCE: MDRC calculations from GAIN intake forms for the registrant survey respondent sample.

NOTES: Sample characteristics were recorded on the intake form by GAIN staff at orientation and are based on answers from GAIN registrants.

Butte County was not included in the survey.

Distributions may not add to 100.0 percent because of rounding or because of information missing from some sample members' intake forms.

Nine cases are lacking the information necessary to calculate estimates related to prior earnings. These cases are not included in the analysis of the subgroups based on disadvantageness.

(a) The "most disadvantaged" individuals are those who did not have a high school diploma or GED, were long−term welfare recipients, and had no earnings in the prior year. The "less disadvantaged" category contains those who did not meet these criteria.

(b) Applicants are registrants who were applying for AFDC at the time of referral to GAIN orientation; they include reapplicants who may have had prior AFDC receipt. Short−term recipients had received AFDC for two years or less; long−term recipients had received AFDC for more than two years (the AFDC receipt may not have been continuous).

(c) Individuals do not have CASAS test scores primarily because they had limited English proficiency and could not complete the tests.

(d) This subgroup includes individuals with and without a high school diploma or GED.

APPENDIX D

SUPPLEMENTAL TABLES AND FIGURE TO CHAPTER 4

TABLE D.1

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's IMPACTS ON PERCENTAGE OF THOSE PARTICIPATING IN SELECTED ACTIVITIES AT THE END OF A TWO- TO THREE-YEAR FOLLOW-UP PERIOD, BY AFDC STATUS AND COUNTY

	AFDC-FGs						AFDC-Us (a)
Outcome and Research Group	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Percent participating in ABE/GED at the end of follow-up							
Experimentals	7.6	4.3	1.0	4.7	4.6	4.4	1.3
Controls	2.1	2.0	1.6	2.7	0.9	1.8	0.0
Difference	5.5 ***	2.3	−0.5	2.1	3.7 **	2.6 ***	1.3
Percent participating in ESL at the end of follow-up							
Experimentals	0.4	1.6	0.5	2.6	1.4	1.3	2.5
Controls	0.4	0.0	0.0	0.5	1.3	0.5	2.4
Difference	0.0	1.6 *	0.5	2.1	0.1	0.9 **	0.1
Percent participating in job search activities at the end of follow-up							
Experimentals	1.3	0.5	0.5	0.5	0.9	0.8	0.0
Controls	0.8	0.0	0.0	0.5	0.0	0.3	0.0
Difference	0.5	0.5	0.5	0.0	0.9	0.5	0.0
Percent participating in vocational training at the end of follow-up							
Experimentals	3.1	4.3	0.5	2.1	1.4	2.3	0.5
Controls	1.7	2.5	1.6	2.7	0.4	1.8	3.1
Difference	1.5	1.8	−1.0	−0.6	1.0	0.5	−2.6 *
Percent participating in post-secondary education at the end of follow-up							
Experimentals	4.4	1.6	2.8	3.7	2.8	3.1	3.2
Controls	4.6	2.5	3.1	2.7	2.2	3.0	1.8
Difference	−0.1	−0.9	−0.2	1.0	0.6	0.1	1.4
Percent participating in work experience at the end of follow-up							
Experimentals	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Controls	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Difference	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent participating in any activity at the end of follow-up							
Experimentals	12.4	10.2	2.8	10.0	7.9	8.7	5.2
Controls	5.0	4.5	3.1	5.8	2.7	4.2	5.4
Difference	7.4 ***	5.7 **	−0.3	4.2	5.2 **	4.5 ***	−0.2
Sample size							
Experimentals	225	187	388	191	216	1,207	146
Controls	241	202	194	189	225	1,051	147

SOURCE AND NOTES: See Table 4.2.

TABLE D.2

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's TWO-YEAR IMPACTS ON AVERAGE NUMBER OF MONTHS IN SELECTED ACTIVITIES, BY AFDC STATUS AND COUNTY

	AFDC-FGs						AFDC-Us (a)
Outcome and Research Group	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Average number of months in ABE/GED							
Experimentals	3.3	2.2	0.8	1.4	2.9	2.1	1.3
Controls	0.3	0.3	0.2	0.3	0.2	0.3	0.1
Difference	3.0 ***	1.9 ***	0.6 ***	1.1 ***	2.7 ***	1.9 ***	1.2 ***
Average number of months in ESL							
Experimentals	0.3	0.9	0.2	0.4	0.3	0.4	1.0
Controls	0.1	0.3	0.2	0.1	0.2	0.2	0.3
Difference	0.2	0.6 **	0.0	0.3 **	0.1	0.3 ***	0.7 **
Average number of months in job search activities							
Experimentals	0.2	0.1	0.3	0.4	0.2	0.2	0.2
Controls	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Difference	0.1 **	0.1 **	0.3 ***	0.3 ***	0.2 ***	0.2 ***	0.2 **
Average number of months in vocational training							
Experimentals	0.5	0.3	0.4	0.5	0.3	0.4	0.3
Controls	0.4	0.3	0.4	0.7	0.1	0.4	0.5
Difference	0.1	0.0	0.0	−0.2	0.2 *	0.0	−0.2
Average number of months in post-secondary education							
Experimentals	1.4	0.8	0.8	1.1	0.8	1.0	0.4
Controls	1.1	0.3	1.0	0.6	0.6	0.7	0.2
Difference	0.3	0.4	−0.1	0.5	0.2	0.2 *	0.1
Average number of months in work experience							
Experimentals	0.2	0.0	0.0	0.0	0.1	0.1	0.0
Controls	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Difference	0.1 **	0.0	0.0	0.0 **	0.1	0.1 ***	0.0
Sample size							
Experimentals	225	187	388	191	216	1,207	146
Controls	241	202	194	189	225	1,051	147

SOURCE AND NOTES: See Table 4.2.

TABLE D.3

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's TWO-YEAR IMPACTS ON AVERAGE TOTAL SCHEDULED HOURS IN SELECTED ACTIVITIES, BY AFDC STATUS AND COUNTY

	AFDC-FGs						AFDC-Us (a)
Outcome and Research Group	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Average total scheduled hours in ABE/GED							
Experimentals	224.5	221.7	76.2	152.3	210.2	177.0	138.6
Controls	20.5	23.1	12.7	25.9	8.8	18.2	5.5
Difference	204.0 ***	198.6 ***	63.5 ***	126.4 ***	201.4 ***	158.8 ***	133.1 ***
Average total scheduled hours in ESL							
Experimentals	18.9	83.1	13.4	25.9	25.6	33.4	83.2
Controls	3.4	17.0	11.4	11.7	11.1	10.9	25.6
Difference	15.5	66.0 ***	2.0	14.1	14.4	22.5 ***	57.6 **
Average total scheduled hours in job search activities							
Experimentals	11.3	12.1	18.5	39.6	11.6	18.6	16.7
Controls	6.1	0.0	0.5	5.3	0.2	2.4	2.1
Difference	5.1	12.1 *	18.0 ***	34.3 ***	11.4 ***	16.2 ***	14.6 **
Average total scheduled hours in vocational training							
Experimentals	36.6	32.3	44.9	50.4	32.8	39.4	20.8
Controls	45.2	18.8	46.2	57.6	13.2	36.2	67.9
Difference	-8.6	13.4	-1.3	-7.2	19.6	3.2	-47.1
Average total scheduled hours in post-secondary education							
Experimentals	96.0	93.8	65.8	71.2	61.7	77.7	28.3
Controls	76.1	27.9	86.4	68.5	49.6	61.7	17.0
Difference	19.8	66.0 *	-20.7	2.7	12.1	16.0	11.2
Sample size							
Experimentals	225	187	388	191	216	1,207	146
Controls	241	202	194	189	225	1,051	147

SOURCE AND NOTES: See Table 4.2.

TABLE D.4

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: AVERAGE WEEKLY SCHEDULED HOURS IN SELECTED ACTIVITIES FOR PARTICIPANTS, BY AFDC STATUS, COUNTY, AND RESEARCH GROUP

	AFDC-FGs						AFDC-Us (a)
Outcome and Research Group	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties	All Counties
Participants' average weekly scheduled hours in ABE/GED							
Experimentals	16.0	25.0	17.5	24.3	17.1	19.9	18.7
Controls	13.7	16.6	13.6	16.9	14.4	15.2	16.8
Participants' average weekly scheduled hours in ESL							
Experimentals	14.4	22.2	18.4	17.1	17.2	17.6	15.7
Controls	9.0	12.5	11.3	15.9	13.8	13.0	18.4
Participants' average weekly scheduled hours in job search activities							
Experimentals	23.8	24.2	19.5	19.5	14.9	20.4	19.5
Controls	22.2	0.0 (b)	30.0	17.1	2.0	17.2	18.5
Participants' average weekly scheduled hours in vocational training							
Experimentals	17.8	23.7	23.0	22.2	24.5	22.3	19.5
Controls	23.6	13.8	20.6	21.7	25.4	21.0	25.5
Participants' average weekly scheduled hours in post-secondary education							
Experimentals	16.1	26.0	17.5	16.5	17.4	18.7	15.7
Controls	16.8	18.2	17.7	16.4	19.6	17.7	14.0

SOURCE: See Table 4.2.

NOTES: See Table 4.2.

The sample size for each row varies, depending on the number of sample members who participated in the activity in each county.

Data on weekly scheduled hours in work experience activities were not collected in the survey.

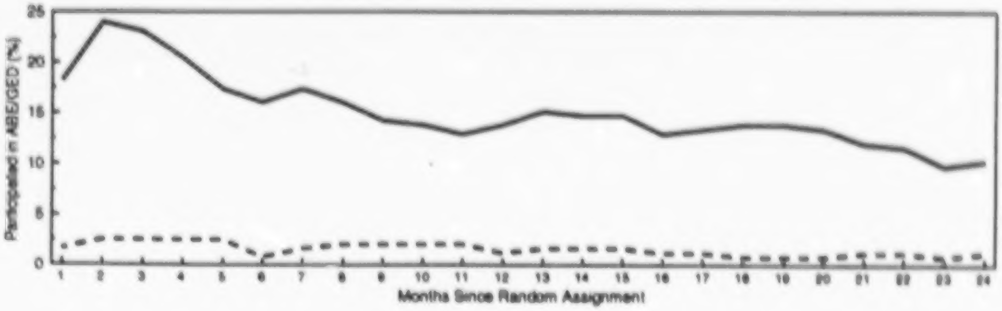
(a) The AFDC-U sample does not include any registrants from Alameda.

(b) No control group members in Los Angeles participated in job search.

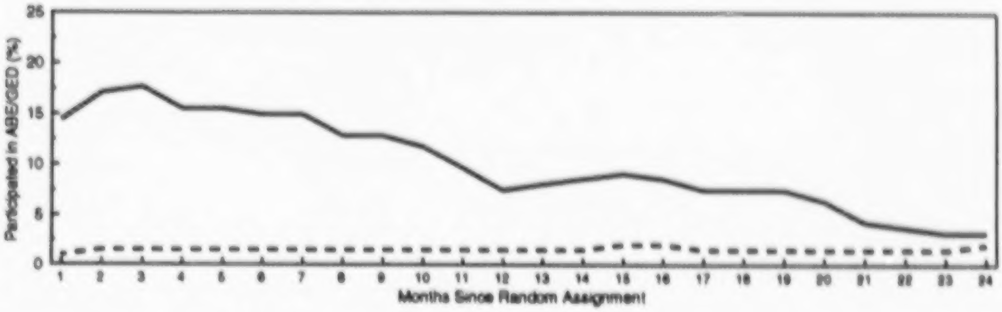
FIGURE D.1

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: MONTHLY PARTICIPATION LEVELS IN ABE/GED FOR AFDC-FG SURVEY RESPONDERS, BY RESEARCH STATUS AND COUNTY

Alameda



Los Angeles



Riverside

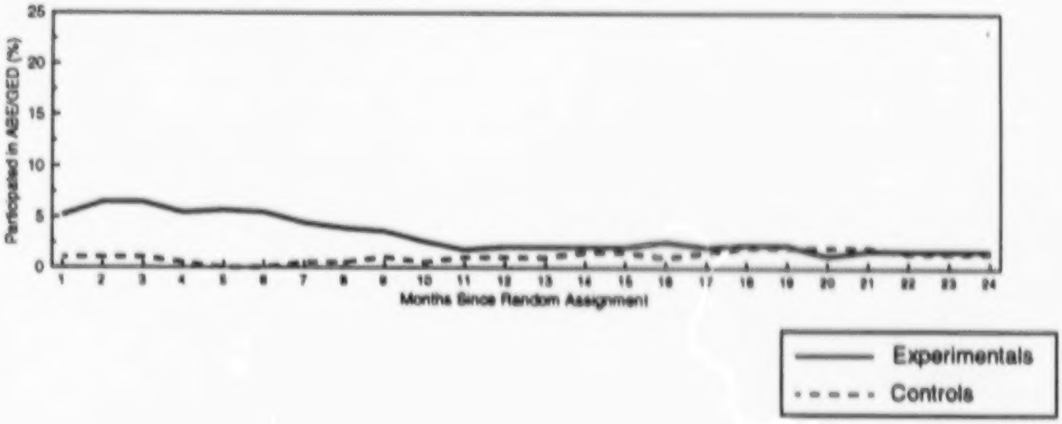
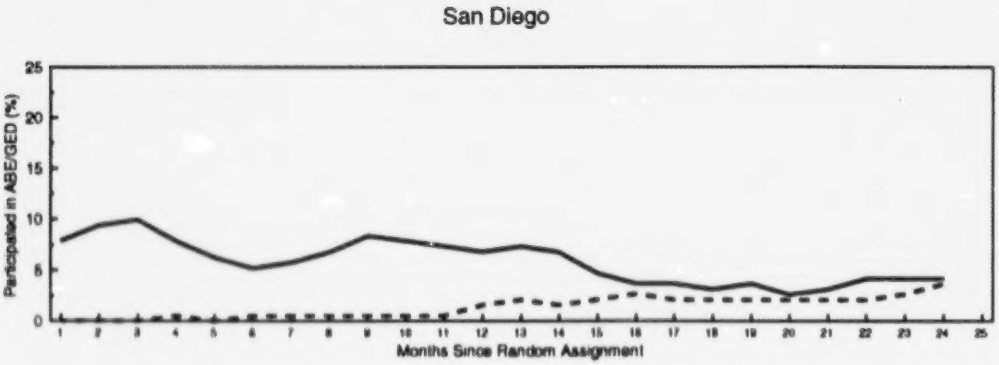
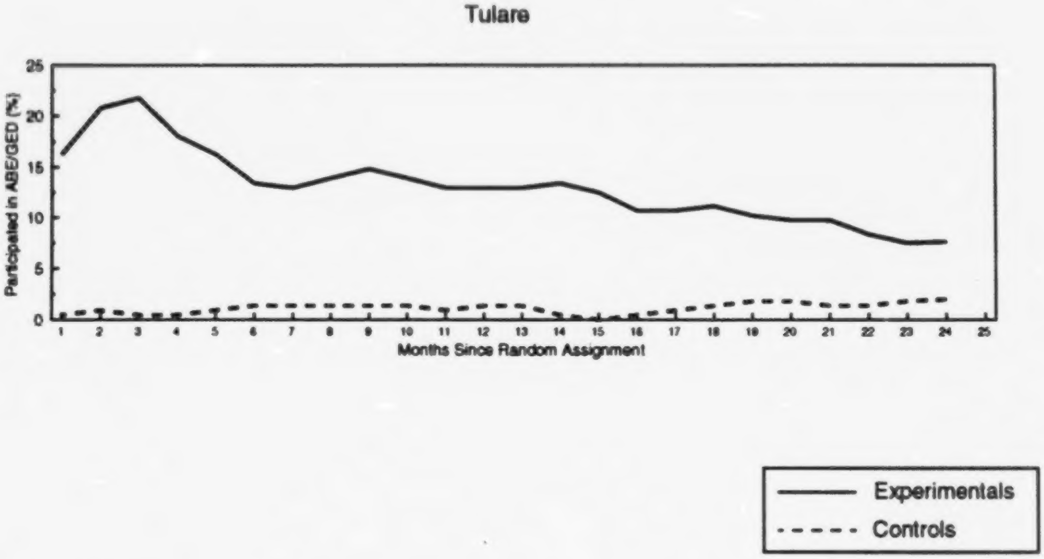


FIGURE D.1 (continued)





SOURCE: MDRC calculations using data from the GAIN registrant survey.

NOTES: See Table 4.2.

APPENDIX E

SUPPLEMENTAL TABLES TO CHAPTER 5

TABLE E.1

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's TWO– TO THREE–YEAR IMPACTS ON PARTICIPATION LEVELS IN SELECTED ACTIVITIES FOR TALS TEST RESPONDERS, BY COUNTY

	AFDC–FGs					
Outcome and Research Group	Alameda	Los Angeles	Riverside	San Diego	Tulare	All Counties
Ever participated in ABE/GED						
Experimentals	46.0	40.0	25.2	35.0	35.5	36.3
Controls	7.0	3.2	5.0	5.6	5.6	5.3
Difference	39.0 ***	36.8 ***	20.2 ***	29.4 ***	29.9 ***	31.0 ***
Ever participated in ESL						
Experimentals	0.0	0.0	0.0	3.3	0.0	0.7
Controls	0.0	2.2	1.2	0.0	0.0	0.7
Difference	0.0	−2.2	−1.2	3.3	0.0	0.0
Ever participated in job search activities						
Experimentals	18.4	11.6	21.9	25.0	11.3	17.6
Controls	4.1	0.0	0.0	5.6	0.8	2.1
Difference	14.3 ***	11.6 ***	21.9 ***	19.4 ***	10.5 ***	15.5 ***
Ever participated in vocational training						
Experimentals	12.3	10.5	9.0	8.3	7.3	9.5
Controls	8.8	6.5	10.0	18.5	8.1	10.4
Difference	3.5	4.0	−1.0	−10.2 **	−0.8	−0.9
Ever participated in post–secondary education						
Experimentals	14.1	12.6	9.7	5.0	13.7	11.0
Controls	13.5	7.5	12.5	3.7	12.1	9.9
Difference	0.6	5.1	−2.8	1.3	1.6	1.1
Ever participated in work experience						
Experimentals	4.9	0.0	0.6	1.7	5.6	2.6
Controls	0.6	0.0	1.2	0.0	0.0	0.4
Difference	4.3	0.0	−0.6	1.7	5.6	2.2 ***
Ever participated in any activity						
Experimentals	68.7	64.2	50.3	53.3	52.4	57.8
Controls	29.2	18.3	27.5	27.8	25.0	25.6
Difference	39.5 ***	45.9 ***	22.8 ***	25.5 ***	27.4 ***	32.2 ***
Sample size						
Experimentals	163	95	155	60	124	597
Controls	171	93	80	54	124	522

SOURCE: MDRC calculations from the GAIN registrant survey for the TALS test sample.

NOTES: Calculations for this table include all TALS test responders, including those who did not participate in basic education.

The TALS test sample includes AFDC–FG sample members from the five counties. Butte County was not included in the TALS test sample.

The registrant survey was administered 26 to 37 months after random assignment, on average, across the five counties. See Appendix Table C.1 for further information on the follow–up period in each county.

"Post–secondary education" includes a small proportion of individuals (roughly 10 percent of participants) who attended high school.

The "all county" estimate is the average of the county estimates, with each county weighted equally.

A chi–square test was applied to differences between experimental and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

TABLE E.2

FOR THOSE DETERMINED TO NEED BASIC EDUCATION: GAIN's TWO– TO THREE–YEAR IMPACTS ON TALS SCORES

Test and Score	Experimentals	Controls	Difference
Document and quantitative literacy tests			
Combined average score	475	473	1.8
(difference/standard deviation) (a)			1.9%
Scored at (%)			
Levels 3–5 on both	18.0	16.2	1.7
Levels 3–5 on either	36.0	31.4	4.5 *
Document literacy test			
Average score	238	239	–0.8
(difference/standard deviation) (a)			–1.5%
Scored at (%)			
Level 1	31.0	29.3	1.7
Level 2	44.1	48.5	–4.4
Level 3	20.0	18.3	1.7
Level 4	4.9	4.0	0.9
Level 5	0.0	0.0	0.0
Scored at (%)			
Levels 1–2	75.1	77.8	–2.6
Levels 3–5	24.9	22.2	2.6
Quantitative literacy test			
Average score	237	234	2.6
(difference/standard deviation) (a)			5.2%
Scored at (%)			
Level 1	39.2	40.9	–1.6
Level 2	31.8	33.8	–2.0
Level 3	26.0	23.2	2.8
Level 4	2.8	2.1	0.7
Level 5	0.2	0.0	0.2
Scored at (%)			
Levels 1–2	71.0	74.6	–3.6
Levels 3–5	29.0	25.4	3.6
Sample size	595	520	

SOURCE: MDRC calculations using GAIN TALS data.

NOTES: Calculations for this table include all TALS responders, including those who did not participate in basic education.

The TALS sample includes AFDC–FG sample members from Alameda, Los Angeles, Riverside, San Diego, and Tulare (Butte was not included in the TALS test sample).

The TALS was administered with the registrant survey, 26 to 37 months after random assignment, on average, across the five counties. See Appendix Table C.1 for further information on the follow–up period in each county.

Four sample members who took the TALS are not included in this table because they are missing identifying information.

All counties are weighted equally in these estimates.

A two–tailed t–test was applied to differences between the experimental and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

(a) The standard deviation of the outcome measure is for all controls, with counties weighted equally. Separate standard deviations were used for the combined score, the document literacy score, and the quantitative literacy score.

TABLE E.3

FOR AFDC–FG REGISTRANTS DETERMINED TO NEED BASIC EDUCATION: GAIN's FIRST– AND SECOND–YEAR IMPACTS ON EARNINGS AND AFDC PAYMENTS

	Average Total Earnings				Average Total AFDC Payments			
County and Year	Experimentals ($)	Controls ($)	Difference ($)	Percentage Change	Experimentals ($)	Controls ($)	Difference ($)	Percentage Change
Alameda								
Year 1	1071	1092	−21	−1.9%	7139	7342	−202	−2.8%
Year 2	1466	1227	239	19.5%	6049	6399	−350 *	−5.5%
Total	2537	2319	218	9.4%	13188	13740	−552 *	−4.0%
Sample size (total = 788)	393	395			393	395		
Butte								
Year 1	1686	1179	507 *	43.0%	5039	6243	−1204 ***	−19.3%
Year 2	2214	1243	972 **	78.2%	3770	4898	−1128 ***	−23.0%
Total	3901	2422	1479 **	61.1%	8809	11141	−2332 ***	−20.9%
Sample size (total = 600)	484	116			484	116		
Los Angeles								
Year 1	1031	1066	−35	−3.3%	7036	7290	−253 ***	−3.5%
Year 2	1321	1291	30	2.3%	5883	6197	−314 ***	−5.1%
Total	2352	2357	−5	−0.2%	12919	13486	−567 ***	−4.2%
Sample size (total = 3,543)	2414	1129			2414	1129		
Riverside								
Year 1	1919	1181	738 ***	62.5%	5218	5895	−677 ***	−11.5%
Year 2	2549	1527	1022 ***	66.9%	3727	4425	−697 ***	−15.8%
Total	4468	2708	1760 ***	65.0%	8946	10320	−1374 ***	−13.3%
Sample size (total = 3,314)	2689	625			2689	625		
San Diego								
Year 1	1719	1645	74	4.5%	5957	6239	−281 **	−4.5%
Year 2	2287	2018	269	13.3%	4790	5215	−426 ***	−8.2%
Total	4005	3663	343	9.4%	10747	11454	−707 ***	−6.2%
Sample size (total = 4,607)	3969	638			3969	638		
Tulare								
Year 1	1406	1283	123	9.6%	6641	6603	39	0.6%
Year 2	1759	1583	176	11.2%	5477	5424	52	1.0%
Total	3165	2866	300	10.5%	12118	12027	91	0.8%
Sample size (total = 1,454)	1036	418			1036	418		

SOURCES AND NOTES: See Friedlander, Riccio, and Freedman, 1993, pg. 59.

TABLE E.4

FOR AFDC–U REGISTRANTS DETERMINED TO NEED BASIC EDUCATION: GAIN's FIRST– AND SECOND–YEAR IMPACTS ON EARNINGS AND AFDC PAYMENTS

	Average Total Earnings				Average Total AFDC Payments			
County and Year	Experimentals ($)	Controls ($)	Difference ($)	Percentage Change	Experimentals ($)	Controls ($)	Difference ($)	Percentage Change
Alameda								
Year 1	--	1113	--	--	--	9938	--	--
Year 2	--	1180	--	--	--	9139	--	--
Total	--	2292	--	--	--	19077	--	--
Sample size (total = 148)	78	70			78	70		
Butte								
Year 1	2385	2062	323	15.7%	6944	6970	−26	−0.4%
Year 2	2927	2285	642	28.1%	5872	5888	−16	−0.3%
Total	5312	4348	965	22.2%	12816	12858	−43	−0.3%
Sample size (total = 580)	448	132			448	132		
Los Angeles								
Year 1	1436	1209	227 *	18.8%	9520	9882	−362 ***	−3.7%
Year 2	1701	1386	316 *	22.8%	8410	8866	−456 ***	−5.1%
Total	3138	2595	543 **	20.9%	17930	18747	−817 ***	−4.4%
Sample size (total = 1,345)	687	658			687	658		
Riverside								
Year 1	3169	2840	329	11.6%	4964	5861	−897 ***	−15.3%
Year 2	3424	3303	121	3.7%	4137	4857	−720 ***	−14.8%
Total	6593	6143	450	7.3%	9101	10718	−1617 ***	−15.1%
Sample size (total = 1,549)	1059	490			1059	490		
San Diego								
Year 1	2622	2807	−184	−6.6%	7345	7698	−353 **	−4.6%
Year 2	3341	3381	−40	−1.2%	6147	6945	−799 ***	−11.5%
Total	5964	6188	−225	−3.6%	13491	14643	−1152 ***	−7.9%
Sample size (total = 2,058)	1539	519			1539	519		
Tulare								
Year 1	2512	2578	−66	−2.5%	7981	7925	56	0.7%
Year 2	2979	3059	−80	−2.6%	6775	6880	−105	−1.5%
Total	5492	5637	−146	−2.6%	14756	14805	−49	−0.3%
Sample size (total = 1,406)	972	434			972	434		

SOURCES AND NOTES: See Friedlander, Riccio, and Freedman, 1993, pg. 91.

Dashes indicate that the sample was too small for analysis; therefore, the calculation has been omitted. The control group means are shown because these can be useful in drawing conclusions about the relative disadvantagedness of target groups across counties.

REFERENCES

Berlin, Gordon; and Sum, Andrew. 1988. *Toward a More Perfect Union: Basic Skills, Poor Families, and Our Economic Future*. New York: Ford Foundation.

Bloom, Dan; Fellerath, Veronica; Long, David; and Wood, Robert. 1993. *LEAP: Interim Findings on a Welfare Initiative to Improve School Attendance Among Teenage Parents*. New York: Manpower Demonstration Research Corporation.

Burghardt, John; and Gordon, Anne. 1990. *The Minority Female Single Parent Demonstration: More Jobs and Higher Pay: How an Integrated Program Compares with Traditional Programs*. New York: Rockefeller Foundation.

Cave, George; and Doolittle, Fred. 1991. *Assessing JOBSTART: Interim Impacts of a Program for School Dropouts*. New York: Manpower Demonstration Research Corporation.

Comprehensive Adult Student Assessment System (CASAS). 1989. *Employability Competency System: Appraisal Test Manual*. San Diego, Calif.: Comprehensive Adult Student Assessment System (CASAS).

Development Associates. 1992. *National Evaluation of Adult Education Programs: Profiles of Service Providers*. First Interim Report. Washington, D.C.: U.S. Department of Education.

Development Associates. 1993. *National Evaluation of Adult Education Programs: Profiles of Client Characteristics*. Second Interim Report. Washington, D.C.: U.S. Department of Education.

Educational Testing Service. 1992. *ETS Tests of Applied Literacy Skills*. New York: Simon & Schuster Workplace Resources/Education Group.

Freedman, Stephen; and Riccio, James. 1991. *GAIN: Participation Patterns in Four Counties*. New York: Manpower Demonstration Research Corporation.

Friedlander, Daniel; and Burtless, Gary. Forthcoming. *An Analysis of Five-Year Follow-up in Four Experimental Evaluations of Welfare-to-Work Programs*.

Friedlander, Daniel; and Hamilton, Gayle. 1993. *The Saturation Work Initiative Model in San Diego: A Five-Year Follow-up Study*. New York: Manpower Demonstration Research Corporation.

Friedlander, Daniel; Riccio, James; and Freedman, Stephen. 1993. *GAIN: Two-Year Impacts in Six Counties*. New York: Manpower Demonstration Research Corporation.

Grubb, W. Norton; Kalman, Judy; Castellano, Marisa; Brown, Cynthia; and Bradby, Denise. 1991. *Readin', Writin', and 'Rithmetic One More Time: The Role of Remediation in Vocational Education and Job Training Programs*. Berkeley, Calif.: National Center for Research in Vocational Education.

Gueron, Judith M.; and Pauly, Edward. 1991. *From Welfare to Work*. New York: Russell Sage Foundation.

Kirsch, Irwin S.; and Jungeblut, Ann. 1992. *Profiling the Literacy Proficiencies of JTPA and ES/UI Populations*. Princeton, N.J.: Educational Testing Service.

Kirsch, Irwin S.; Jungeblut, Ann; and Campbell, Anne. 1992. *Beyond the School Doors: The Literacy Needs of Job Seekers Served by the U.S. Department of Labor*. Princeton, N.J.: Educational Testing Service.

Kirsch, Irwin S.; Jungeblut, Ann; Jenkins, Lynn; and Kolstad, Andrew. 1993. *Adult Literacy in America: A First Look at the Results of the National Adult Literacy Survey*. Princeton, N.J.: Educational Testing Service.

Martinson, Karin; and Riccio, James. 1989. *GAIN: Child Care in a Welfare Employment Initiative*. New York: Manpower Demonstration Research Corporation.

Mincer, Jacob. 1989. "Human Capital and the Labor Market: A Review of Current Research." *Educational Researcher* 18(4).

O'Day, Jennifer, A; and Smith, Marshall S. 1993. "Systemic Reform and Educational Opportunity." In *Designing Coherent Education Policy: Improving the System*, ed. Susan H. Fuhrman, 250-312. San Francisco: Jossey-Bass.

Pauly, Edward; Long, David; and Martinson, Karin. 1992. *Linking Welfare and Education: A Study of New Programs in Five States*. New York: Manpower Demonstration Research Corporation.

Riccio, James; and Friedlander, Daniel. 1992. *GAIN: Program Strategies, Participation Patterns, and First-Year Impacts in Six Counties*. New York: Manpower Demonstration Research Corporation.

Riccio, James; Goldman, Barbara; Hamilton, Gayle; Martinson, Karin; and Orenstein, Alan. 1989. *GAIN: Early Implementation Experiences and Lessons*. New York: Manpower Demonstration Research Corporation.

Wallace, John; and Long, David. 1987. *GAIN: Planning and Early Implementation*. New York: Manpower Demonstration Research Corporation.

SELECTED MDRC PUBLICATIONS

WELFARE-TO-WORK PROGRAMS

From Welfare to Work (Russell Sage Foundation). Book. 1991. Judith M. Gueron, Edward Pauly. A synthesis of research findings on the effectiveness of welfare-to-work programs. Chapter 1, which is the summary of the book, is also published separately by MDRC.

Reforming Welfare with Work (Ford Foundation). Monograph. 1987. Judith M. Gueron. A review of welfare-to-work initiatives in five states.

Working Papers

Child Support Enforcement: A Case Study. 1993. Dan Bloom.

Learning from the Voices of Mothers: Single Mothers' Perceptions of the Trade-offs Between Welfare and Work. 1993. LaDonna Pavetti.

Unpaid Work Experience for Welfare Recipients: Findings and Lessons from MDRC Research. 1993. Thomas Brock, David Butler, David Long.

Papers for Practitioners

Assessing JOBS Participants: Issues and Trade-offs. 1992. Patricia Auspos, Kay Sherwood.

Linking Welfare and Education: A Study of New Programs in Five States. 1992. Edward Pauly, David Long, Karin Martinson.

Improving the Productivity of JOBS Programs. 1993. Eugene Bardach.

The GAIN Evaluation

An evaluation of California's Greater Avenues for Independence (GAIN) Program, which is currently operating as the state's JOBS program and features upfront basic education as well as job search and other activities.

GAIN: Planning and Early Implementation. 1987. John Wallace. David Long.

GAIN: Child Care in a Welfare Employment Initiative. 1989. Karin Martinson, James Riccio.

GAIN: Early Implementation Experiences and Lessons. 1989. James Riccio, Barbara Goldman, Gayle Hamilton, Karin Martinson, Alan Orenstein.

GAIN: Participation Patterns in Four Counties. 1991. Stephen Freedman, James Riccio.

GAIN: Program Strategies, Participation Patterns, and First-Year Impacts in Six Counties. 1992. James Riccio, Daniel Friedlander.

GAIN: Two-Year Impacts in Six Counties. 1993. Daniel Friedlander, James Riccio, Stephen Freedman.

The JOBS Evaluation

An evaluation of welfare-to-work programs operating under the Job Opportunities and Basic Skills Training (JOBS) provisions of the Family Support Act of 1988.

From Welfare to Work (Russell Sage Foundation). Book. 1991. Judith M. Gueron, Edward Pauly. See description above.

The Evaluation of Florida's Project Independence

An evaluation of Florida's JOBS program.

Florida's Project Independence: Program Implementation, Participation Patterns, and First-Year Impacts. 1994. James Kemple, Joshua Haimson.

The Saturation Work Initiative Model (SWIM)

A test of the feasibility and effectiveness of an ongoing participation requirement in a welfare-to-work program.

Interim Report on the Saturation Work Initiative Model in San Diego. 1988. Gayle Hamilton.
Final Report on the Saturation Work Initiative Model in San Diego. 1989. Gayle Hamilton, Daniel Friedlander.
The Saturation Work Initiative Model in San Diego: A Five-Year Follow-up Study. 1993. Daniel Friedlander, Gayle Hamilton.

The Demonstration of State Work/Welfare Initiatives

A test of the feasibility and effectiveness of various state employment initiatives for welfare recipients.

Arizona: *Preliminary Management Lessons from the WIN Demonstration Program*. 1984. Kay Sherwood.

Arkansas: *Interim Findings from the Arkansas WIN Demonstration Program*. 1984. Janet Quint.
Final Report on the WORK Program in Two Counties. 1985. Daniel Friedlander, Gregory Hoerz, Janet Quint, James Riccio.

California: *Preliminary Findings from the San Diego Job Search and Work Experience Demonstration*. 1984. Barbara Goldman, Judith Gueron, Joseph Ball, Marilyn Price.
Findings from the San Diego Job Search and Work Experience Demonstration. 1985. Barbara Goldman, Daniel Friedlander, Judith Gueron, David Long.
Final Report on the San Diego Job Search and Work Experience Demonstration. 1986. Barbara Goldman, Daniel Friedlander, David Long.

Illinois: *Interim Findings from the WIN Demonstration Program in Cook County*. 1986. Janet Quint, Cynthia Guy.
Final Report on Job Search and Work Experience in Cook County. 1987. Daniel Friedlander, Stephen Freedman, Gayle Hamilton, Janet Quint.

Maine: *Interim Findings from a Grant Diversion Program*. 1985. Patricia Auspos.
Final Report on the Training Opportunities in the Private Sector Program. 1988. Patricia Auspos, George Cave, David Long.

Maryland: *Interim Findings from the Maryland Employment Initiatives Programs*. 1984. Janet Quint.
Final Report on the Employment Initiatives Evaluation. 1985. Daniel Friedlander, Gregory Hoerz, David Long, Janet Quint.
Supplemental Report on the Baltimore Options Program. 1987. Daniel Friedlander.

New Jersey: *Final Report on the Grant Diversion Project*. 1988. Stephen Freedman, Jan Bryant, George Cave.

Virginia: *Interim Findings from the Virginia Employment Services Program*. 1985. Marilyn Price.
Final Report on the Virginia Employment Services Program. 1986. James Riccio, George Cave, Stephen Freedman, Marilyn Price.

West Virginia: *Interim Findings on the Community Work Experience Demonstrations*. 1984. Joseph Ball.
Final Report on the Community Work Experience Demonstrations. 1986. Daniel Friedlander, Marjorie Erickson, Gayle Hamilton, Virginia Knox.

Other Reports on the Demonstration of State Work/Welfare Initiatives

Documentation of the Data Sources and Analytical Methods Used in the Benefit-Cost Analysis of the EPP/EWEP Program in San Diego. 1985. David Long, Virginia Knox.
Relationship Between Earnings and Welfare Benefits for Working Recipients: Four Area Case Studies. 1985. Barbara Goldman, Edward Cavin, Marjorie Erickson, Gayle Hamilton, Darlene Hasselbring, Sandra Reynolds.
Welfare Grant Diversion: Early Observations from Programs in Six States. 1985. Michael Bangser, James Healy, Robert Ivry.

A Survey of Participants and Worksite Supervisors in the New York City Work Experience Program. 1986. Gregory Hoerz, Karla Hanson.
Welfare Grant Diversion: Lessons and Prospects. 1986. Michael Bangser, James Healy, Robert Ivry.
Work Initiatives for Welfare Recipients: Lessons from a Multi-State Experiment. 1986. Judith Gueron.

The Subgroup/Performance Indicator Study
A study of the impacts of selected welfare-to-work programs on subgroups of the AFDC caseload.

A Study of Performance Measures and Subgroup Impacts in Three Welfare Employment Programs. 1987. Daniel Friedlander, David Long.
Subgroup Impacts and Performance Indicators for Selected Welfare Employment Programs. 1988. Daniel Friedlander.

The Self-Employment Investment Demonstration (SEID)
A test of the feasibility of operating a program to encourage self-employment among recipients of AFDC.

Self-Employment for Welfare Recipients: Implementation of the SEID Program. 1991. Cynthia Guy, Fred Doolittle, Barbara Fink.

The WIN Research Laboratory Project
A test of innovative service delivery approaches in four Work Incentive Program (WIN) offices.

Immediate Job Search Assistance: Preliminary Results from the Louisville WIN Research Laboratory Project. 1980. Barbara Goldman.
Preliminary Research Findings: WIN Research Laboratory Project. 1980. MDRC.
Final Report on WIN Services to Volunteers: Denver WIN Research Laboratory Project. 1981. Ellen Slaughter, Paulette Turshak, Gale Whiteneck, Edward Baumheier.
Impacts of the Immediate Job Search Assistance Experiment: Louisville WIN Research Laboratory Project. 1981. Barbara Goldman.
The Workings of WIN: A Field Observation Study of Three Local Offices. 1981. Sydelle Levy.
Welfare Women in a Group Job Search Program: Their Experiences in the Louisville WIN Research Laboratory Project. 1982. Joanna Gould-Stuart.
The WIN Labs: A Federal/Local Partnership in Social Research. 1982. Joan Leiman.
Job Search Strategies: Lessons from the Louisville WIN Laboratory. 1983. Carl Wolfhagen, Barbara Goldman.

PROGRAMS FOR TEENAGE PARENTS ON WELFARE

The LEAP Evaluation
An evaluation of Ohio's Learning, Earning, and Parenting (LEAP) Program, which uses financial incentives to encourage teenage parents on welfare to stay in or return to school.

LEAP: Implementing a Welfare Initiative to Improve School Attendance Among Teenage Parents. 1991. Dan Bloom, Hilary Kopp, David Long, Denise Polit.
LEAP: Interim Findings on a Welfare Initiative to Improve School Attendance Among Teenage Parents. 1993. Dan Bloom, Veronica Fellerath, David Long, Robert Wood.

The New Chance Demonstration
A test of a comprehensive program of services that seeks to improve the economic status and general well-being of a group of highly disadvantaged young women and their children.

New Chance: Implementing a Comprehensive Program for Disadvantaged Young Mothers and Their Children. 1991. Janet Quint, Barbara Fink, Sharon Rowser.
Lives of Promise, Lives of Pain: Young Mothers After New Chance. Monograph. 1994. Janet Quint, Judith Musick, with Joyce Ladner.
New Chance: An Innovative Program for Young Mothers and Their Children. Brochure. 1993.

Project Redirection

A test of a comprehensive program of services for pregnant and parenting teenagers.

The Challenge of Serving Teenage Mothers: Lessons from Project Redirection. Monograph. 1988. Denise Polit, Janet Quint, James Riccio.

The Community Service Projects

A test of a New York State teenage pregnancy prevention and services initiative.

The Community Service Projects: A New York State Adolescent Pregnancy Initiative. 1986. Cynthia Guy.

The Community Service Projects: Final Report on a New York State Adolescent Pregnancy Prevention and Services Program. 1988. Cynthia Guy, Lawrence Bailis, David Palasits, Kay Sherwood.

THE SCHOOL-TO-WORK TRANSITION PROJECT

A study of innovative programs that help students make the transition from school to work.

The School-to-Work Transition and Youth Apprenticeship: Lessons from the U.S. Experience. 1993. Thomas Bailey, Donna Merritt.

Home-Grown Lessons: Innovative Programs Linking Work and High School. 1994. Edward Pauly, Hilary Kopp, Joshua Haimson.

Learning Through Work: Designing and Implementing Quality Worksite Learning for High School Students. 1994. Susan Goldberger, Richard Kazis, Mary Kathleen O'Flanagan (all of Jobs for the Future).

THE PARENTS' FAIR SHARE DEMONSTRATION

A demonstration aimed at reducing child poverty by increasing the job-holding, earnings, and child support payments of unemployed, noncustodial parents (usually fathers) of children receiving public assistance.

Caring and Paying: What Fathers and Mothers Say About Child Support. 1992. Frank Furstenberg, Jr., Kay Sherwood, Mercer Sullivan.

Child Support Enforcement: A Case Study. Working Paper. 1993. Dan Bloom.

The Parents' Fair Share Demonstration: Report on the Pilot Phase. Forthcoming. Dan Bloom, Kay Sherwood.

THE NATIONAL JTPA STUDY

A study of 16 local programs under the Job Training Partnership Act (JTPA), the nation's job training system for low-income individuals.

Implementing the National JTPA Study. 1990. Fred Doolittle, Linda Traeger.

The National JTPA Study: Site Characteristics and Participation Patterns. 1993. James Kemple, Fred Doolittle, John Wallace.

A Summary of the Design and Implementation of the National JTPA Study. 1993. Fred Doolittle.

About MDRC

The Manpower Demonstration Research Corporation (MDRC) is a nonprofit social policy research organization founded in 1974 and located in New York City and San Francisco. Its mission is to design and rigorously field-test promising education and employment-related programs aimed at improving the well-being of disadvantaged adults and youth, and to provide policymakers and practitioners with reliable evidence on the effectiveness of social programs. Through this work, and its technical assistance to program administrators, MDRC seeks to enhance the quality of public policies and programs. MDRC actively disseminates the results of its research through its publications and through interchange with policymakers, administrators, practitioners, and the public.

Over the past two decades – working in partnership with more than forty states, the federal government, scores of communities, and numerous private philanthropies – MDRC has developed and studied more than three dozen promising social policy initiatives.

Manpower Demonstration
Research Corporation

Three Park Avenue
New York, New York 10016
(212) 532-3200

88 Kearny Street, Suite 1650
San Francisco, California 94108
(415) 781-3800

MDRC